The SALT WATER ANGLER

LEONARD HULIT

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THE LARGEST TUNA TAKEN ON ROD AND REEL

THE SALT WATER ANGLER

A COMPENDIUM OF INFORMATION FOR SALT WATER FISHERMEN

BY

LEONARD HULIT

AUTHOR OF "FISHING WITH A BOY," ETC.

D. APPLETON AND COMPANY

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Two men stand out so prominently in the history of modern surf fishing in this country that this volume is dedicated to them.

WILLIAM B. GUILD

A blessed memory, who is recognized as the Dean of modern surf fishing, and

JOHN F. SEGER

who for more than thirty years has been so prominently to the fore in all matters looking to the promotion of this great sport.

PREFACE

In preparing this work it has been kept constantly in mind that it shall be rather a handbook for the "angler" than otherwise. Technical terms are avoided and much local coloring so arranged that different localities may at a glance understand "species" and detail.

It is to be regretted that the nomenclature of our "coast line fishes" is so confusing, some of the more prominent varieties having almost as many names as localities which they visit.

At a conference held some years since in New York City the late Marshall MacDonald, who was then at the head of the National Commission, gave a lengthy and intelligent talk upon the subject, urging that a special endeavor be made to arrange and make understandable a qualifying title for each species of fish which visit or permanently inhabit our Atlantic Seaboard.

There is perhaps no sport which has grown more rapidly in public favor during the past quarter century than has "surf fishing," while men in all ages have been given over to the charms of the "gentle art," still "surf fishing" as now practiced has a charm and "technique" all its own. While it calls for vigor of body, it has the quality of giving vigor and rest to the mind of the tired

man of affairs, and is ever read to pay in the "golden coin" of health all who embrace its subtle wooings.

If anything within this volume may cause one man to love the art more, or assist him in getting better results in any manner from his endeavors then it shall not have been written in vain, and the writer will feel well repaid for the endeavor here made.

Many of the illustrations in *The Salt Water Angler* are reproduced from *The Fisheries and Fishery Industries of the United States,* by the courtesy of the United States Commission of Fish and Fisheries.

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THE SALT WATER ANGLER

THE SALT WATER ANGLER

CHAPTER I

MODERN SURF FISHING

WHEN the immortal Walton compiled his *Compleat Angler* he doubtless furnished the nucleus of all angling literature; for little doubt exists of its superiority over all of the volumes written during the ensuing years. Other men have beyond question been more technical in form, but none have been so lovable in expression nor so explicit concerning the art itself.

It is the soul of the man breathing through its pages expressing his partnership with nature that endears his writings in a most inexpressible manner. The drone of the bee and the unfolding buttercup beneath his feet are so completely interwoven with the cast of his fly over his cherished pool, that one in fancy can feel with him that it is not all of fishing to "catch fish."

Succeeding generations of men have gone far afield since his time in quest of the great sport, having finer tackle than he ever dreamed of to manipulate, and

greater stretches of water to work over; yet none have lived to do it better nor to tell of it in equally entrancing manner. To the fortunate mortal of unlimited time and means, who can at will whip the mountain streams with their foaming pools in quest of *fontinalis* or the lordly salmon, there must come moments of inexpressible delight in such endeavor, and it is to be hoped that none will decry the pastime nor envy those so fortunate.

It is rather to extol the merits of and the pleasures to be had through surf fishing that this volume has been prepared.

It has been the writer's aim to set forth in as lucid a manner as possible the characteristics of the various fishes discussed, and where they may be looked for under given conditions.

It is to be doubted whether any sport has had greater growth during the past quarter of a century than has surf fishing. It is accessible to vast multitudes of city dwellers who are each season becoming more attracted by its possibilities and charm. Like all outdoor sports, its charms are enhanced by the very uncertainties inherent in its pursuit.

When a man, who has had a successful day with a given bait and tidal conditions to his liking, again visits the beach under conditions seemingly the same, and meets with flat failure, he is usually in a meditative mood at once, and has a mind open to suggestions from

others as to why, when all conditions are apparently similar, results are so different.

The mighty sea has its mysteries, and her children are endowed with instincts sufficient for their well-being, placed there by the great creative mind.

It has been the writer's endeavor to set forth in a simple manner through the succeeding pages cause and effect through changing tides and currents, as well as to portray through pen and camera modern tackle and other equipment necessary to successful effort in ocean fishing.

The plates are photographic reproductions of those issued under direction of the United States Fish Commission and are authentic in all details.

Where recommendations are made as to special merits of any particular article it is done with the sole idea of placing the reader in possession of the knowledge of what is the best of its kind as learned through more than thirty years of experiment and observation.

The list of fishes discussed embraces about all those with which the angler is liable to come in touch throughout the middle Atlantic coast, and the tackle and baits the most trustworthy that many years of experience may indite.

To the "amateur" surf fisherman this advice is given: in the selection of tackle get the best, the very best the purse will allow. Do not permit the salesman—who perhaps has never cast a line in the surf—to palm off

something cheaper and "just as good." Cheap materials are ever what their name indicates and are always dear when emergencies arise, and their failure to perform leaves the owner with nothing but chagrin for their cheapness.

Then, watch; and get into the confidence of some man of experience at the game. Learn where he goes and how he applies his art. Fishermen as a rule are companionable, and from an adept may be learned more in a single hour than can be gleaned from a library of catalogues as relates to tackle of real worth. In short, make a study of the methods of your "mentor." If he is a man of accomplishments in the art he has a real reason for his "modus operandi"; and when your equipment has been secured give it care. Never, when in from a trip, drop your outfit in the first convenient corner, there to stand until again wanted. To do this makes you unworthy of that which is good, as such treatment will soon ruin the best of materials. Specific hints will be found in succeeding chapters regarding the care of rods and all equipment.

And REMEMBER: if at all possible, never let any of your catch go to waste. There are always families to whom fish are ever welcome and to divide your fish with a friend, or perhaps the needy, soon becomes a real joy. And with the securing of your first outfit make a firm resolution to be an ardent conservator of fish life. While the Creator has endowed all fish with wonderful powers

of reproduction, still the wasteful methods employed in commercial fisheries, together with the pollution of many tidal streams from factories and sewage, work fearful havoc to many forms of marine life, some of which are all too rapidly disappearing from waters once alive with adults and their progeny.

In brief, let "thoughtfulness" be the watchword and "kindness" the motto of all those who love the deep sounding sea and who go "angling."

CHAPTER II

THE FIRST REQUISITE OF THE ANGLER

ONE of the prime requirements of the angler at all times is bait. This applies as well to the fresh water disciple as to his more heavily tackle-burdened brother, the enthusiastic angler of the surf and shore.

In the latter sport there are so many baits which are useful, and some at times so indispensable, that a list with comment thereon may be of service to the novice. It is well to remember in all cases the nearer to natural conditions the lure can be presented the greater the chances of success. There are some varieties of bait which cannot be used in its whole form, and must be cut in pieces, yet there are some ways better than others even in this service.

The Shedder Crab

First in importance as a bait in salt water fishing is the shedder crab. There is not a fish native to our waters or which comes to them, which will not at times take this bait. So well is this fact known that many men of experience will not go out on a trip without a supply of this commodity on hand. Even when

other baits seem to be more desirable, such as on the quest of the bluefish when mullet or menhaden are ordinarily the killing proposition, still as a reserve in emergency, the shedder is somewhere in the "kit." To the experienced this bait needs no description nor any directions as to how it should be prepared. There are many, however, who know little or nothing of where they may be procured or how to prepare them for the hook. They can usually be purchased at the better bait supply stores in all cities near the coast and ordinarily are sold for about one dollar per dozen. Frequently, if the fisherman is near the soft crab gatherers who ply their work in all the shallow waters of the rivers and bays, the shedder may generally be had from them at about one-half the former price. Still the chances of this are so uncertain and the endeavor ordinarily so great that it is more satisfactory to get them at the store where the quality can generally be depended on; for there are many tricks in this trade, and the novice may walk away from the unscrupulous tradesman's stall with a box of fine looking crabs only to find when endeavoring to use them that there is not a genuine shedder in the lot. If the purchaser has any doubt as to what he may get, he can easily test for himself the condition of the crab by taking the extreme point of the shell between the thumb and forefinger and, if under a gentle pressure of the finger on the under shell it gives way, the crab is in good condition, and may

safely be taken. This is a never failing test, and one which is always used by the man of experience. If on the other hand the shell will not readily break through by gentle pressure, it is useless, and will be found impossible as a bait.

The term shedder is aptly applied, and when properly handled the entire shell can be removed as easily as the shell from a hard-boiled egg, leaving the body of the crab intact, a good solid bait, to be cut in sections as will appear later on. In preparing them care must always be exercised or the hands will suffer from the nipper claws which are ever ready for business, and a good healthy crab can inflict a wound which is not to be despised. The proper way is to take them up in the left hand from the back and by a quick motion gather in the right hand one of the nipper claws and with the same motion remove the claw, which will always come loose with a smart wrench; the other claw can be removed in the same manner, after which the crab is harmless and can be handled with impunity. Then with handle of a knife or a pair of shears—the latter should be always a part of every "kit"—tap the under shell smartly until it cracks much the same as an egg shell into small parts which can be removed; then turn the crab over, going through the same detail with the top shell until all is removed. The claws which have been previously removed can be cleaned in the same way and they always are an important part if

of good size. When baiting for striped bass or channel bass half of the crab should always be used. First, string the claw portion on the hook much the same as a worm, passing it up beyond the hook and onto the snell. As large hooks are always used for these fish such a portion will be found not too large and it makes a most attractive portion. If the side fins or feelers, as they are termed, are left on, so much the better, as they add to the attraction of the bait. In fishing for weakfish, kingfish or croakers, as well as many other fish, the crab can be cut in much smaller portions and serve equally well. Always remember to cut the meat crosswise of the body as this is the direction of the grain or strands of the flesh and it will stay on the hook much better than if cut in the opposite direction. There is on the side of the crab opposite from the mouth, under the shell, a dark flaplike portion known as the "apron." This should always be retained, and when placing the crab on the hook the point should be passed through this portion, as it is very tough and causes the bait to hang to the hook well. And—as a warning—never accept from a dealer a dead crab. If he tells you they are just as good as the live ones, he is not honest and will deceive you in other matters as well. The only crab which is a "good crab" is the one which peels readily, and the one you kill yourself when ready for use. When out fishing always keep the grass which is on the crabs well moistened, not soaking wet, as this last condition has

a tendency to smother them. Upon your return put them at once in the bottom of an ice box or other very cool place, and always where it is dark. By following these directions crabs can be kept several days in good shape.

Bloodworm or Whiteworm

Next in importance to the crab in the angler's bait category is the bloodworm or whiteworm, as it is frequently called—why the latter name is difficult to understand, as it in no way describes the subject. On the other hand the name bloodworm is quite comprehensive as the worm is at all times congested with blood and is never white.

This worm, as well as the crab, may be had at all bait stores and is a special favorite with many fishermen at all seasons. It is, however, in great demand during the early season for use around the inlets in bass fishing, as they apparently feed much on this during the early spring, and also the autumn months. As a trolling bait it is paramount; used in connection with a spinner it is the most deadly of all lures to the striped bass. This applies of course to boat work, trolling around points where rocks and wrecks are to be found in inland waters, with ends of the worms hanging free from the hook and just lead enough to keep the spinner and worm well down in the water. If bass are to be had this method will prove most availing. The

kingfish also take this bait greedily, and at times no other bait will be noticed by them. While at times weakfish will condescend to come to this offering, still it is an exception when they do so. It is also an important bait for the small flounder and is in much demand in the winter months by the early fishermen who go in quest of this fish. The bloodworm is found at the bottoms of all the rivers and bays of our middle Atlantic states in the alluvial strata and is taken by means of specially designed forks. Millions of dozens are sold annually and many men make good incomes from the sale to dealers.

The Skimmer Clam

This is perhaps too well known to need much of a description as it is to be found much of the time along the beach front where it is washed in by the tides and where it becomes the prey of scavenger birds as well as the fisherman who, other baits failing, turns to this when in quest of bass. At times this is one of the best possible baits. Many times have I fished when nothing would be noticed by His Striped Majesty but the humble skimmer. It is much used by the deep sea fishermen for codfish and other bottom feeding fish.

The Mullet

As a bait fish the small surf mullet is supreme. This fish must not be confused with the striped or southern

mullet which occasionally comes to us in the autumn and is an important food fish. The species which is under discussion reaches a length rarely exceeding five inches and is most pronounced in character. It appears along the seaboard as early as July, but is much more abundant during August and September. It ordinarily enters all the tidal streams along the coast, and is pursued by all the carnivora of the sea. Its life is one of continual pursuit by every free swimming fish in our waters. Bluefish, weakfish and bonito are ever on its trail at the surface, while the ubiquitous plaice are continually striking it from below. The striped bass in the autumn feed ravenously on it at times; and it is then that the angler in turn gets back at the bass when he discovers them feeding in that manner, by trailing the metal squid rapidly through the school. The fish mistakes the metal for the mullet and so falls a victim to his rapacity.

In surf casting for the bluefish the mullet is used when possible, as it is of a size to be used whole by passing the hook in at the mouth, then down the body, and then through near the tail. At night weakfish take the mullet readily and great catches of them have been made on this bait; in fact, all the strongly carnivorous fishes of the coast are in pursuit of it. The mullet is taken by means of casting nets as well as the hauling seines and it is amusing to watch the not-too-well-posted hand endeavor to gather in the mullet with the drag net.

He will have them surrounded and sure in his own mind of the prize, but if slow in motion the fish will leap the cork line, and like a flock of sheep each one following its leader leave the discomfited netter empty handed. They are a beautiful, silvery fish, and when prepared properly greatly surpass the ordinary sardine in flavor.

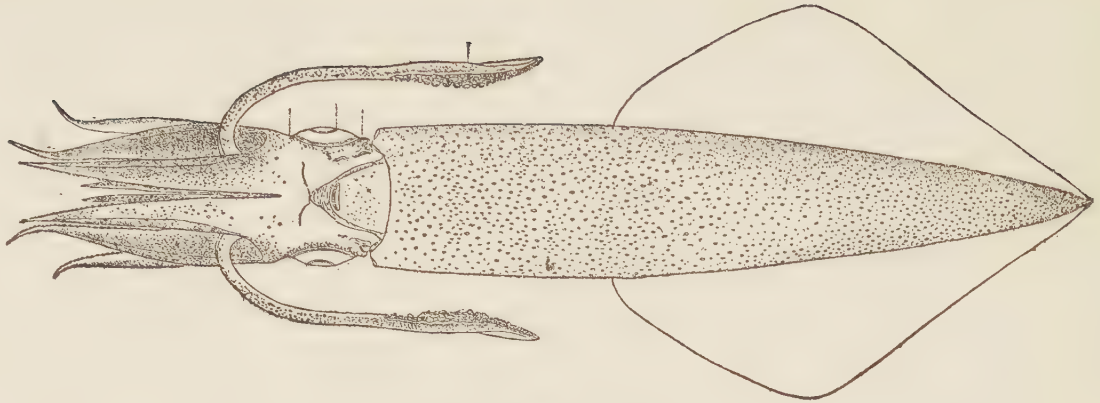
The Sand Eel or Sand Lant

As a favorite bait, when procurable, the sand eel stands high; in fact, its only demerit is the lateness of the season in which it presents itself. Were it an earlier visitor it is much to be questioned if the mullet would have any claim to superiority. The fact that it is never with us until very cool nights are in season is an argument that does not favor its general use It grows to a length of ten inches, but is rare of that size. About six inches of the thickness of a stout lead pencil is the most common size; the belly of a silvery whiteness and back of a livid green make a combination of colors of great harmony. Its peculiar habit of burying itself in the wet sand on the bars as the tide recedes, there to remain until the rising tide calls it forth again, undoubtedly gave rise to its name. It is interesting to walk across those places and to see tiny creatures spring from the earth at your feet and as instantly disappear. More interesting, however, is the sight in the water of untold millions swimming in vast

schools, the water fairly quivering, and from below the larger fish rushing here and there gathering in the helpless lant while in the air myriads of small gulls or terns with discordant cries feed on them incessantly, dipping to the water's edge and circling away with the victims in their bills. After the arrival of the lant, if the weather remains at all favorable, it becomes a favorite bait for the use of the beach fishermen in taking weakfish and plaice as well as the occasional bluefish that sometimes wanders near.

The Mossbunker or Menhaden

No list of baits would be complete without including the mossbunker, as it is so universally termed. It is a good attraction for many of our finest fishes, and is largely used in all the offshore fisheries. It is the exclusive bait for the bluefish fleets, thousands of bushels being used annually. It is, however, its use as a bait for beach fishing which is of interest here. As the flesh is rather soft, a piece of thread wrapped a few turns about the whole bait assists materially in keeping it on the hook. If possible, throw all the waste portions to sea as they make a slick and attract the passing fish. It is always a good bluefish bait and one that can usually be depended on for the taking of the channel bass. In fishing for the latter a very liberal portion should be used, as much as the hook will hold, as this fish is ordinarily quite tardy in coming to a



THE COMMON SQUID
Loligo Pealei

feast which is not abundant. I have seen many of these fish taken when all other baits were passed by, only those fishers using menhaden being successful. In former years striped bass fishing at Block Island and Cuttyhunk was conducted entirely with this bait. But what the favorite lure may be at this date I cannot say.

The Squid or Inkfish

It is only within recent years that this bait has held any prominence in the angler's estimation. While it may have been used for a long time by the offshore boats working among the rocks in quest of sea bass, it has not had more than ten years of special notice among surf fishermen.

While of course it has been known for an indefinite time among those wise in sea lore, it has never been accepted as a particularly good attraction until recent years. That it enters largely into the food economy of the bass, weakfish and the mackerel family is to be believed, and it is at times a most welcome addition to the angler's "kit." Some of the largest bass ever taken along the New Jersey coast have been caught as a result of using this bait. It has one special merit: when going on an extended trip where there is a possibility of other baits becoming hard to procure, a pailful of this, cleaned and salted, will often prove of the utmost value, as it becomes quite firm in brine, and will keep indefinitely.

Channel bass take it freely as well as almost every other species of fish.

The Shrimp

It would not be proper to pass by without mentioning the merits of shrimp as bait. It is well known to all bay and river fishermen, but it is of no value to the surf caster, since it will not remain on the hook. The energy put into the cast always whips away this soft specimen. Although mussels, too, are fair bait under certain conditions, much the same may be said of them.

CHAPTER III

TIME AND TIDE FOR SURF FISHING

IN considering a table or schedule for salt water fishing it is well to bear in mind that no matter how carefully it may be compiled, there is frequently much divergence in fishing conditions under given dates.

While warm currents and favorable winds may prevail one year and angling conditions be ideal, a succeeding season may produce conditions so entirely different at a corresponding period that the unthoughtful may characterize the author as careless or without knowledge of his subject. The best, therefore, that may be done is to generalize and compile a schedule based on a general average of many years of observation.

Anomalous as it may appear, a south current, that is, a current flowing from south to north along the middle Atlantic states from the Virginia capes northward, invariably produces extremely low temperature in the water; usually so low that few if any of our coast-line fishes will remain in it. And while such currents remain the fisherman could better devote his time to other pursuits. Of course it is generally known that fish are cold-blooded creatures and would not at

first thought be regarded as particularly sensitive to such conditions, still it is a well-recognized fact that all varieties delight in trading in the warmer waters and are only to be taken freely when such conditions prevail.

Even the hardy striped bass will not remain in the icy currents and disappear promptly when they set in. However, after several days of adverse conditions a northern current strikes in which is usually induced by a blow from the northeast and the waters again become warm and good fishing may be looked for promptly. Neither is it certain that what proves a most killing bait at one tide will be as successful on the next. It is always advisable when possible to have two or more varieties of bait at hand; often when one does not seem to be desired another may work wonders.

The information given here is meant to govern surf fishing and it should be remembered that dark, cloudy days are more favorable during all stages of the tide. In order that a better understanding may be had, various names are given to each subject in different localities.

Striped Bass

Greenhead, Rockfish, Squidhound. *Season*—June 1st to November 15th. *Habitat*—all coast waters, particularly near inlets. *Tide*—last of ebb and on to full flood. *Time*—very early morning and from evening on to mid-

night. *Bait*—early in the season, bloodworm; later, shedder crab, skimmer clam, menhaden. In the autumn, mullet and the metal squid trolled rapidly over the feeding grounds are very successful. The squid or inkfish is at times an attractive bait.

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Channel Bass

Red fish—misnomer, Red Drum. *Season*—June 15th to October 1st. Not abundant north of Barnegat Inlet. *Habitat*—all deep cuts along the beach. *Tide*—all of ebb and early flood. *Time*—any hour, day or night. *Bait*—menhaden, shedder crabs, clams and the squid or inkfish.

Bluefish

Has but one general name and is easily identified. *Season*—June 20th to November 1st. *Tide*—is but little affected by tides, a most pronounced rover and is liable to appear at any stage in pursuit of its prey. *Bait*—mullet, menhaden and different kinds of cut up fish. The metal squid cast out and reeled in rapidly is the most successful lure.

Weakfish

Squeteague, Squit. *Season*—June 1st to November 1st. *Tide*—half ebb to half flood. *Time*—early evening and all night. *Habitat*—all deep cuts along beach, casting well out. *Bait*—shedder crabs, mullet and squid.

Kingfish

Barb, Sea-mink, Black Mullet, Surf Whiting. *Season*—June 1st to October 1st. *Habitat*—around edges of deep cuts and sand bars. *Tide*—last of ebb and early flood. *Bait*—bloodworms, shedder crabs and sandworms. *Time*—evening.

Croaker

Exclusive name. *Season*—July 1st to October 15th. *Tide*—ebb. *Time*—night almost entirely; rarely bites well during bright sunlight. *Bait*—shedder crabs, squid and bits of fish. *Habitat*—sand flats and shallow places.

Plaice

Splaice, Fluke, Brail, Summer Flounder. *Season*—May 15th to November 1st. *Tide*—flood to half ebb. *Bait*—crab, mullet, sand eels and minnows. *Time*—daylight exclusively. *Habitat*—deep cuts along beach.

New England Whiting

Winter Weakfish, Frostfish. *Time*—night exclusively. *Tide*—not affected by tides. *Season*—November 1st to May 1st. *Bait*—spearing and sand eels as well as bits of fish. Usually taken from piers and like structures on the beach. It can also be taken on small metal squids.

The foregoing comprises a list of fish which the angler may hope to take from the beach by casting in the surf. Of course some others may be taken but so rarely that it is not considered of moment to place the matter here, this being offered as a ready reference

CHAPTER IV

THE MODERN SURF ROD

IN constructing a fishing rod the first and most vital consideration should be the material from which it is to be built. Even though the best of material may have been selected, should the workman not possess full technique of his trade, understanding the importance of comparative caliber and length, he will doubtless produce a failure. That he will produce a rod we are ready to admit. Any one who can handle tools may do that. But, will he get the hang of the thing, that exact balance, due to caliber, just where it belongs?

Primarily, the rod builder should be a fisherman, and not a mere mechanical theorist who will contend that, when exact details have been followed regarding caliber and length, an equally good rod will at all times ensue. Such arguments are at best but theories, and are not borne out by proven facts. Even the finest of steel rods when exact caliber, by reason of the drawn metal tubes, is produced will vary considerably in their action due to variance in temper as well as the grain of the metal. How much greater then will be the variations in rods made from wood when we consider the fact that

no two woods possess the same resiliency, owing to density, grain and other factors. Hence the insistence that the builder of a rod should be a practical fisherman, one to whom the sense of touch is paramount.

Such a man carries with him all through the building of the rod a knowledge of the wood he is working, and has a fair idea of what the finished product will be; but for exactness he must depend on his delicate sense of touch. He, being a knowing worker, is alive to the fact that no two pieces of wood, even when riven from the same plank, will produce equal resiliency or spring; there are ever the variations in the grain of the wood that cause the difference. It is here that the rod maker's acumen plays its part as he proceeds with his work towards perfecting a rod that will give real pleasure in handling. Testing, continually testing for spring as the wood is worked down, is the secret of rod building when material has been determined upon, and it is this fine sense of knowing the action of wood at the bench together with actual experience in surf casting that gives us through the hand of such a mechanic the rod of constructive delight.

The modern surf rod is an implement of nicety and poise, and when worked out with due consideration for the requirements of its owner, may well be considered as practically perfect.

It must not, however, be accepted as a finality that all men who cast from the beach know just what is

best and most suitable to their needs. Here we meet with the short man who has observed how easily his much taller and longer-armed friend, using a seven-foot tip, places his bait well out to sea and perforce goes to his tackle dealer and purchases or places his order for a long rod. Arguments avail nothing, the eternal fitness of things does not appeal to him, he sees his tall friend manipulate the long rod so nicely and, of course, it is the merit of the rod's length that accomplishes the feat. But, when he puts his own new rod in action there is something wrong. He finds the tip of the rod strikes the sand back of him and thus destroys the momentum of his cast. The rod maker had tried to tell him about that, but found it to be wasted energy. He had selected as a balance of proportion to his long tip a correspondingly long butt, and he being a man with arms designed by nature to fit his stature finds his rod butt, when fitted in the leather rest buckled about his waist, many inches too long for him to reach his reel comfortably, and so he learns too late that a very long rod and a very short man are not a well-balanced combination. In surf casting the "modus operandi" is so entirely different from fly-fishing that to get right proportions for action the height of the user must be given careful consideration and length of butt and tip based accordingly.

Almost any of the tough-fibered woods will make a rod of sufficient strength to land the largest of fish if

properly handled. It is not the killing of the fish but the casting from the beach that puts the surf rod to its supreme test. Frequently when winds and currents are adverse five and even six-ounce sinkers are used which, coupled with a large bait, require a terrific snap in making the cast to get the bait well out. Particularly is this true when casting in the teeth of a strong wind. To those who are not familiar with the subject it would be surprising to know the effort necessary to perform such work, as the wind driving against the bait while high in the air as well as against the paying out line retards the cast very materially. It is at such times that the rod is called upon to perform prodigies of strength, and to get a wood of great resiliency that will remain straight has been the endeavor of mankind for many years.

A thoroughly well-built surf rod of split bamboo is considered by many men as "ultra" of all materials. These rods should be made "double" or as they are termed "double enamel," meaning that two layers of the very tough outside of the bamboo be glued one upon the other before cutting, so they will make a solid core to the center of the rod. Such a rod when carefully built is truly excellent and, if kept well varnished and all wrapping fully looked to, will last many years, giving the owner delight in its use. They are, however, expensive and many people will not pay the prices they command.

One of the best-known woods for rod making and one that was preëminent for many years is lancewood. It is a native of the West Indies and is a tree of rather small growth, rarely exceeding nine or ten inches in diameter. It is an exceedingly tough wood though not as dense as the woods which will be noticed later on. A rod made from a section taken from near the heart of the tree will prove of ideal worth and it is doubtful if any wood excels it in point of toughness. It is, however, growing scarcer in the market with recurring years and frequently other woods of far less merit are palmed off on the unsuspicious, degama wood being the usual substitute, which has but little of the merit of true lancewood.

Several years since, quite a stir was made over the merits of "bethabara," it being an extremely dense wood and very dark in color, some promoters claiming it to be the last word in woods for rod making. It was rather short-lived, however, and at the present time but little is heard of it as it was found in most cases to be very short-grained and too much selection was necessary to get suitable lengths of straight-grained cuts.

Greenheart, with its superlative features, has about crowded all other woods to the background. It has stood the test of time and is now the prime favorite with rod makers and users alike. The tree is a native of British Guiana and is frequently found as large as four feet in diameter. It has been termed "resinous oak" by

some writers as well as by dealers, but it does not belong to the true oaks.

In selecting this wood the proficient rod maker picks out his planks which come sawed to a thickness of one and an eighth inches. Then, cutting them to the desired lengths, he proceeds to split with wedges the sections that are straight grained. This gives him slabs of wood perfectly straight from end to end. These are then sawed into strips of the same diameter as the thickness of his plank, so he has squares of one and an eighth inch thickness. These are never turned in a lathe, but are worked down by a hand plane through their entire length, first working the corners so the stick becomes octagonal in form when a rounding plane is brought into service and by continual turning of the wood the rounded rod is produced to the final tempering, if such a term may properly be used. At this point begins the real technique of rod building. Tapering and testing for spring are concomitants of skill. Again and yet again the test is made, dressing a little here and reducing a trifle at another point until it approaches the desired action when sandpaper and steel wool are brought into service so as to avoid a possible deep cut with the plane which might ruin the action of the stick. It is quite an ordinary occurrence to have a fine rod warp or spring badly as the inner fibers of the wood become exposed to the atmosphere in the process of dressing down. The novice would at first glance dis-

card such a piece as worthless; not so, however, with the experienced mechanic. When this occurs as the rod is nearing completion the wood is exposed to intense heat for a short period, and then while yet hot rubbed briskly with the palm of the hand on the side that takes the arch or bow, when usually, as if by magic, the rod assumes perfectly straight lines and ordinarily remains so through its career.

All this is being told of the high-grade greenheart rod made by hand and guaranteed by its maker, which has stood the test of time and endured the severest of service; but it does not include the factory product rounded in a lathe from any stock that has sufficient length. Such rods may give fairly good service occasionally but when they do it may be credited to the merits of the wood itself rather than to the intelligence or honesty of the maker. Such rods, like the "razor man's" product, are made to "sell" and are fitted out with imitation agate guides and tips with nickeled brass mountings which do look well at first inspection, but usually prove a delusion and the snare that breaks down when service is most desirable.

If there is a person on earth to be avoided it is the salesman who vaunts his wares as "just as good" as the hand-made variety which comes from the dealer who has a reputation to sustain and will cheerfully replace a rod that may go wrong with fair usage. His rods are fitted out with genuine agates and German silver

mountings throughout which will endure for a lifetime if given fair treatment.

All surf rods should be fitted with four guides for the line to pass through and set in pairs directly opposite each other. Arranged thus the sides of the rod can be changed at each fishing and if there is a tendency in the rod to take a set, this method will keep it straight. There is quite a tendency of late to have but one set of guides placed about sixteen inches from the tip, the advocates of this system claiming a reduction of line friction through the guides. This, to a certain extent, may be true but the serious drawback is when casting against the wind there is a tendency to cause the line to flap badly in the long space between the reel and the single set of guides and so makes possible a line-hitch around the base of the agates which frequently means loss of tackle. Moreover, line friction, where large agates are used, is negligible and two sets are always to be preferred. There are makers who insist on finishing their rods without a dowel on the end that goes into the reel seat. This invites weakness where most strength is needed and imposes undue strain on the metal part and will in time of stress bend the reel seat, making it impossible to assemble the rod properly. A dowel of at least an inch and a quarter in length should be worked on the tip so it may pass down into the butt and form a complete locking there. Regarding the proper butt for a surf rod, there is a won-

drous divergence of opinion. The long spring butt has grown rapidly in favor of late among a large class of old-time regulars at the sport. These butts are from thirty to thirty-four inches in length and turned so they are quite slender in the middle part. They are usually made from hickory and their adherents claim that when the cast is made the slender butt acts in unison with the spring of the tip. All of which may or may not be logical. It is one of the theories that creep into all sports as well as the more sober affairs of life, and to look upon the proposition from the material side we will argue that the hand at the reel is the fulcrum, the long tip the lever which propels the sinker, and the more rigid the stretch of butt between the hands the more impulse is given the tip. They are, to say the least, unsightly, uncomfortable to handle and, on analysis, fail to show superiority over the long-established favorites of twenty-four to twenty-six inches. As noticed in the beginning of this article the length of the rod should be governed somewhat by the height of the owner. A good all around length for men of ordinary stature is: tip, six feet; butt, twenty-four to twenty-six inches. If the latter length butt is chosen this will make a rod, when assembled, eight feet two inches and will be found ample for all occasions. For men of low stature a rod tip five feet six inches in length with butt of twenty-four inches works well. In order that the matter may be made entirely clear I

will repeat, most casts are made directly over the shoulder and, as the rod is thrown back to gather momentum, if out of proportion to the height of the man the tip is prone to strike the ground and so break the cast.

And now that you are the owner of a fine rod give it care. Never, under any circumstances, stand it in a corner with butt attached. Always detach butt from tip and wipe all dry; then with a cloth moistened with vaseline go over every part thoroughly, and hang the tip on a peg or nail reserved for the purpose. Never let a winter go by without giving it a coat of good, slow-drying varnish. Put it on thinly and evenly and hang it where the dust will not find it until dry. Give your rod care and, if you are the owner of such an one as is here described, you may depend on its caring for you when you want it most. When not in use—HANG IT UP.

CHAPTER V

THE SURF REEL

THERE is no implement of the salt water fisherman's equipment as essential as his reel, and none quite as difficult to write of without laying oneself open to the charge of favoritism, or seeking to advance the interests of some particular firm.

In this connection the writer would reiterate what has been said elsewhere, that he has no interest, pecuniary or otherwise, in the manufacture or sale of a single item of fisherman's equipment, and when specific mention is made, it is done with the sole idea of giving information as to what has proven of high merit through many years of personal experience.

On visiting the average tackle store, the prospective purchaser, if a novice, is confronted with a maze of reels, many of which, when first seen, might be regarded as good as another; and if the salesman is as ignorant as himself (of which class there are too many) of the merits of different makes, and so passes out tackle "just as good" as the best and very much cheaper, it is a case of the blind leading the blind, and if the purchase be made along the above lines disappointment will be the inevitable result.

Many of the cheaper reels are well appearing, being neatly finished and quite smooth running when new, and the price withal so attractive to the uninitiated that they are prone to buy and then repent at leisure.

Such reels are made with rubber side plates, the metal parts of brass, nickel-plated, and all bearings and pivots, as well as gears, made from the same soft material, which, with but brief use, cut down rapidly, the reel soon becoming rickety and noisy. Besides, the action of the salt water cuts off the nickel, leaving the dull brass exposed to view, and the owner exposed to his folly.

All this is being said of the surf casting reel, of which the requirements are of the most exacting nature. In fresh water fishing, the above class of reels perform better, and may be given more consideration.

When the pivots and bearings become worn, the reel, despite the noise it emits when the cast is made, may perform fairly well; but when reeling in begins, particularly if a fish is being played, the pressure which is being exerted on the handle crowds the metal disk that plays just within the cove of the rubber plate, impinging the disk sharply against the plate. The rubber becomes an actual brake to the revolving disk and puts a stop to all further operations.

This has been witnessed many times by the writer, and in most cases the owner could not conjecture why his reel refused to turn just at the moment when he particularly desired it to work at its best.

While the argument may be advanced that many men do not feel they can afford the outlay incident to the purchase of the higher grade reel, such argument has no fitting here where merit, and demerit, alone are being discussed.

The properly constructed reels are of German silver with rubber side plates, and have steel pivots running in hardened bronze bearings and all gears cut from the same practically indestructible material. These reels are so made that, when the least wear is noticeable in the bearings, they may be removed and new ones set in so that the reel becomes as tight and smooth-running as when first built.

Surf fishing is most pronouncedly in a class by itself, the greatest wear and requirements of tackle being from casting and not from landing the fish. The heavy sinkers and large baits employed require the best and surest material to place the baits where required, in the face of varying winds and in heavy seas; at such time the strain and wear on tackle is enormous.

The best of modern casting reels are now constructed with switch or throw-off attachment, so that when the cast is made the gears are not in mesh and the spool only of the reel revolves allowing the handle to remain idle while the line plays smoothly out.

This valuable improvement not only permits a much longer cast to be made but saves a tremendous amount of wear on the delicate mechanism of the reel, and the

action is so simple as to in no way mar the reel's appearance.

Upon any of the following makes of reels the surf fisherman may depend with absolute confidence if the highest types are selected: Julius von Hofe, Edward von Hofe, and the A. F. Meisselbach Company. Any one of these makes of reels has great merits in casting as well as wonderful endurance in this arduous game, while what is known as the B-ocean reel has no superior or possibly no equal as a reel for trolling for tarpon, tuna and other large game fish.

The above is not written in a spirit derogatory to any other first-class reel; it is simply an expression of what is good and absolutely dependable and is meant as an assistance to such as are not familiar with reel makers' wares.

Ordinarily what is known as 2-0 size will be found to be amply large for the taking of all fish to be met with in beach fishing. Such a reel will hold six hundred feet of standard, fifteen thread, hard laid line, or the same quantity of the special twenty-one thread. These lines have approximately the same diameter and are much used. While larger reels are used by many and are warmly supported, still the occasion is rare when the 2-0 reel and six hundred feet of line will not conquer the sturdiest of fish when the hand of experience holds the rod.

One of the incongruities frequently met with is the

unbalanced rod and reel. Such an arrangement consists of either a large reel and a light rod, or a small reel set to a heavy rod. Either situation is bad, and can in no sense give pleasant results.

There is no better metal extant for the construction of reels than German silver. While during a season's use it may dull down and corrode slightly, still a few minutes' use of a good metal polish and a soft cloth will restore its brightness to its original form and this characteristic remains during its entire life; besides, the metal is exceedingly tough and strong.

When these high-grade reels are compared with the cheaper forms the novice may see at a glance many of the points of superiority. While the nickel looks nice and bright, there is a richness of color very noticeable in the German silver never to be seen in the cheaper article, and the switch or throw-off attachment is a pronounced feature, while all parts are very accurately fitted. Notice the little ratchet on the handle set close up to the screwhead that secures the handle to the post. That little device is to prevent the cap from working loose, and so endanger the loss of the handle at a time when such a loss would be disaster. Such little niceties are invaluable and are to be found throughout the entire reel greatly to the benefit of the owner, not to mention the comforts they bestow. But what is more important is the quality of the workmanship shut from view in

the interior. This is what counts and makes worth while the extra outlay of cash.

Pivots and bearings finished from the best of procurable materials are there, all adjusted with the greatest of mechanical skill, making just such differences in wear and accuracy as are met with in the finest of chronometers and the dollar watch. As with the latter we may get time of some character for a period, after which it is cast in the discard, so with the cheap reel; it will turn round for a short period, but soon its life is gone and it is cast aside; but, as with the finely built watch, the superlative reel goes on and on, giving accurate results and many years of pleasant associations.

Having selected your reel, one of the finest procurable, it will not give you the best there is in it unless you bestow your thoughts in its behalf. Keep it clean; never neglect wiping it dry when through fishing.

Somewhere the writer has a catalog of a dealer in reels which says oil your reel only once during a season; that is ample. Such advice is simply criminal when your reel is considered, and should such advice be followed in surf fishing burned-out bearings and gears would be the continual result. Better advice would be, never start out on a trip without putting a drop or two of good oil into each of the bearing cups, as well as about all parts where the handle works.

When the season is over, and before the reel is put away for its long rest, take it apart and thoroughly clean

each portion of its mechanism; then, putting it loosely together, let it stand until spring again reminds you of it. Before using it, put all about the gears a liberal portion of good vaseline or, better, a fine quality of graphite grease. This can be prepared by taking a portion of white vaseline and incorporating with it a little graphite in powder. Get this mixture in generous quantity between the meshes of the gears so they will be running continually in it, and you will find how smoothly your reel will at all times work and how the life of the reel will be prolonged.

When this has been done tighten all parts of the reel firmly and keep them tight; never permit a part to get and remain loose. Many oils sold contain a large proportion of common kerosene; never use such an oil on a fine reel! Rather, go to a drug store, and procure, say, two ounces of the best sweet oil, then pour it in a wide mouth bottle, after which drop into it three or four bright nails. The acid in the oil will at once attack the nails and set up oxidation. When this has taken place remove the nails and replace with others and let them remain for a few days, and when oxidation or rust, as it will appear to be, ceases or grows noticeably less, remove the nails and drop into the oil enough of the powdered graphite to make the oil black. This will give you enough oil for a long time and prove one of the best to be had. The graphite serves a double purpose, it is not only a valuable lubricant, but it has an adhesive

quality and prevents the limpid oil from flowing away from the pinions, and as a result lubrication can at all times be depended upon.

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And by all means keep your reel free of sand or other grit! If, by chance, sand gets into it, take it apart and give it a thorough cleaning at the earliest possible moment and then keep it clean!

A chamois-lined leather case to carry the reel in, if going on an extended trip, acts as a safeguard against grit of any kind, and will be found to be a paying investment.

Reels of the quality described, if properly cared for, will never be the cause of serious misunderstandings, and will give handsome returns for the money expended and the care bestowed upon them.

CHAPTER VI

WAYS OF THE FISHHOOK

TO the great majority of people a fishhook is a fishhook and they seem quite content to let it go at that. None of us perhaps may gainsay the assertion.

To others, however, of more interested turn of mind many of the designs made and sold under that title are but weak apologies for the practical patterns of tried merit.

Many of us who have seen the rude horn and bone hooks of the ancients, as well as those which are yet in vogue where civilization has not yet intruded to a great extent, marvel how fish may be taken on such contrivances, some of them so grotesque in shape and finish as to remind us of nothing in particular, and, least of all, a "fishhook."

Still they do take fish in some inexplicable manner.

If hungry alligators and voracious sharks can be taken on a perfectly straight stick, as some writers aver, then we may entertain the idea that somehow the bone hooks, which remind us somewhat of the stag prongs on which "grandfather's" rifle reposed, might be more or less effective.

It is claimed that a stout stick of about a foot in length to which a light chain or heavy wire has been attached exactly in its center, when baited and thrown to a hungry shark or set in the vicinity of a 'gator's retreat, will be snapped up and instantly gorged. Then, when tension is put on the wire or chain from the attached line the stick turns crosswise in the stomach or throat of the victim and cannot be dislodged.

This seems primitive, but, if effective, it answers the purpose for which it was intended, and no hook may do more.

In the writer's boyhood days "springhooks" were to be seen in all tackle stores. These consisted of two hooks, the lower and larger one being the one to be baited, while the upper one when ready for use was drawn back somewhat like the hammer on a gun, and was provided with a short, active spring, which when fully raised rested in a groove or slot in the baited hook.

While the latter was much after the pattern of the ordinary hook, the upper one, instead of being curved, was bent at right angles from the shaft and was fully pointed and barbed.

The idea of this contrivance was, that when a fish struck the baited hook the tension would release the spring which would drive the upper hook into the jaw of the fish from above so that the victim would be hooked from the outside as well as in the usual manner.

This hook never became popular as it was cumbersome in the extreme, and, when trolling or otherwise moving the bait about, was prone to become entangled in weeds or other obstruction which would immediately spring the hook, resulting frequently in lost tackle; or, if released it would prevent the hooking of the fish as, when it was sprung, the points were folded together, thus making it impossible to perform the usual functions of a practical hook.

It is doubtful if any contrivance has been evolved which is more satisfactory or positive in its action than the simple well formed hook.

Just what constitutes the "best form" is of course largely a matter of individual opinion. That a given hook which works well on one species of fish will not give equally good results with others is conceded as true. This is doubtless owing to differences in the formations of the jaws of the fish to be considered as well as to their method of taking the bait.

The bluefish, for example, takes the bait with the sharpest of snaps, indicating that it is moving swiftly at the time, and rarely if ever gorges the hook.

With these fish it may readily be seen that a hook with a good length from bend to point should be used as the lip or jaw hold is the only one to be expected.

Such a hook is the "Limerick." This hook comes in two styles, "Straight" and "Kirby." There are, how-

ever, several minor patterns of each type, such as "low point," etc., which are not at all important. The two primal types only are to be considered. Just what merit has been attained by the bending over sharply to one side, as in the "Kirby" pattern, is not clear. Some fishermen, however, cling to that style quite tenaciously and, of course, are entitled to their views.

What is known as the "hollow point" straight pattern is perhaps the most universally used hook in existence and has taken more fish than any other type. It is a general favorite with all deep sea fishermen, and trawl lines in the cod fishery are equipped with it. It has one drawback, however. Being made from steel wire it is usually highly tempered and will frequently, when under severe stress, snap at the bend.

Were some wide-awake concern to take over the manufacture of this hook, giving it the high-grade finish and temper bestowed on the O'Shaughnessy, it would doubtless prove to be the most killing and satisfactory hook procurable.

The "Sproat" hook is another favorite, and justly so. It is admirably adapted to the taking of most fish, being what is known as "low pointed," that is, rather short from point to bend, and is, in the better qualities, "hollow pointed."

To describe aptly just what is meant by this term is perhaps a trifle difficult. If the reader who has never noted the difference in hooks of these types will but

ask an intelligent dealer he will at once be shown just what is meant.

Most hooks are what is known as "spear" point, that is, the metal tapers away from where the barb is cut in a straight line to the point, while in the "hollow" point the metal is cut or ground away on the under side, creating a concave surface. This has the effect of throwing the barb well away from the remaining metal, and, once buried in the flesh of a fish, it is almost impossible to shake it out.

The "Sproat" hook has a perfectly true bend from shank to point, making a wide opening so the hook takes a deep set in the jaw and holds well. It is a very popular hook and many anglers confine themselves to this type alone, using suitable size for the variety of fish they may be in quest of. It may be had in the highly finished quality of the O'Shaughnessy and in every conceivable size, and can with safety be relied on for the taking of any fish, due regard being given to proper size.

The "Carlisle" is a rather peculiar hook, being constructed principally of a fine wire and having a long shank. It is admirably tempered and is used to a great extent in catching weakfish. It is of the "Kirby" type and has a needle-like point. It is to be doubted if there is a better hook extant for taking pickerel as the slender wire passes readily between the bony frames of their jaws and holds well. It is not, however,

suitable for surf fishing, being too springy for that rather arduous game. To the young bluefish, known as "snapper," it is peculiarly deadly; no hook being its superior or equal. When these fish crowd into the inlets they furnish the most exhilarating sport, and it is then that the "Carlisle" is seen at its best, as it is safe to say that nine out of every ten lines in service are equipped with it. The long shank prevents cutting away with their merciless jaws as would be the case with the shorter snelled hooks.

In surf fishing, however, the O'Shaughnessy is par excellence, leading all others, and it is doubtless true that more of this type of hook is used in this class of fishing than of all others combined. In taking the striped bass and channel bass it has no equal, its shape apparently being perfectly adapted to their form of mouth. It is a rather peculiarly shaped hook, having on its upper or bent side a semblance of "hump" just back of where the cutting of the barb begins on the under side. This has a tendency to throw the point of the hook below the line of outer surface—a generally accepted wrong principle. Notwithstanding, it is peculiarly deadly to the varieties of fish above mentioned, and when once seated and proper management is exercised, the hold is fatal.

Like most good things these hooks have their counterfeits, and myriads of hooks are sold under their title which never knew the anvil of the genuine maker whose

product bears his name stamped on the shank of each hook, no matter how small the size may be.

The genuine hooks are expensive, or appear so on first thought, but their splendid quality, if at all well cared for, makes them really less expensive than the cheaper qualities, as they may be re-snelled many times. Occasionally an angler is met with who rejects these hooks on the ground that when caught in wreckage or other obstruction the line or leader must be broken as the hook will not give way. This should be regarded as praiseworthy rather than as a subject of condemnation. Fishhooks are primarily designed to hold.

The counterfeit "O'Shaughnessy" is machine-made and of haphazard tempering; many break where the barb is cut. If this occurs when a fish is being played, it, of course, loses the prize to the angler, who is then ready enough to admit that his economy in the matter of hooks has been most expensive.

When a hook—no matter what make it may be—is deeply gorged, it, as a matter of reason, will land the fish, providing it does not break. But gorging so infrequently happens with the best and gamest of our fishes that careful thought should be given to the advice of practical men as to what has produced best results through experience.

While no one can possibly foretell what will next snap at his hook when surf fishing, still, all who follow the game have times when a particular species is under

quest. At such time hooks of specific sizes are in order.

More than thirty years of experience over local and southern waters have brought home the convincing fact that the following makes and sizes of hooks are approximately correct for the various species of fish under consideration:

Bluefish, bonito.....Limerick or Sproat, 6-0 to 8-0
Striped bass, channel bass, O'Shaughnessy, 6-0 to 8-0
Weakfish, plaice.....Limerick or Sproat, 5-0 to 6-0
Croakers .....O'Shaughnessy, 3-0 to 4-0
Kingfish .....O'Shaughnessy, 1-0 to 3-0
Sheepshead .....O'Shaughnessy, 5-0 to 6-0
Snappers, young bluefish..Ringed Carlisle, 2-0 to 3-0
Striped bass, trolling inside waters,
O'Shaughnessy, 4-0 to 6-0

The above list comprises most of the important fishes angled for from the beach, and in each case when bulky baits are used, such as shedder crabs, clams, menhaden and squid, the larger size hooks given in the schedule should be used as the smaller sizes are liable to be smothered in the bulky bait and so be less effective. If the smaller baits, such as bloodworms and shrimps, are used the smaller size hooks will be found to be amply large.

Freak catches are occasionally made as a matter of course. A large bass comes in on a small hook, or it may be the small-mouthed kingfish is impaled on a 7-0

hook. But the exception proves the rule, as is witnessed through the strikes which may be had and the "misses" that are registered through improper size hooks.

While it may be borne in mind that there are many kinds of hooks not mentioned in the foregoing list, all of which do take fish, still none of them are superior in any way to the list given and few are their equals.

And again, some are such positive freaks in design as to be practically worthless.

Having selected your hooks, which should be of the highest procurable quality, thought should be given to their care. Never go fishing without a small piece of fine emery cloth in your kit. Examine the point of your hook frequently; if it has less than a needle point, apply the emery cloth. The hook may have been in contact with some very hard substance which may have dulled the point or bent it slightly. A few touches of the emery will correct such troubles and greatly enhance the probability of success with your next strike. Never under any circumstance use a rusty hook; your emery will remove that in short order, and, oh! the pleasure there is in stringing bait on a bright clean hook.

Again, never put a wet hook in your tackle book, as it will invariably start rust on all hooks it comes in contact with. Wipe it dry, and with a small cloth well saturated with vaseline rub it over, and the next time you have use for it you will be well repaid for the time taken.

When using a Limerick or Sproat hook, see to it that the point sets well up; that is, that the point does not drop toward the shank. If such should become sprung or improperly inclined as mentioned, by holding the bend of the hook in the flame of a candle or spirit lamp for a moment, with a small pair of pliers the point can be raised up to the desired angle which should be just "a trifle high" when sprung. The hook should be immediately dipped in a bath of oil. Do not allow it to cool in the air or the temper will be drawn.

In these straight-line hooks a point just a trifle high is of material advantage in hooking your fish.

In a word, the angler who is a trifle fastidious in the selection and care of his tackle is the man who usually returns with the best string of fish.

All the types of hooks mentioned can be had whipped to loop snells which are most positive in action and very easy of adjustment to leaders. Once in your possession give them "care" and they will give you "reward."

In reverting to the O'Shaughnessy, it should be borne in mind that where exceptions are taken to its merit with specific individuals, these exceptions apply simply to its occasional lack of hooking qualities, and in no manner impugns its great merit as a hook which "holds" when once seated, as with it the giant, plunging, leaping tuna is subdued and the great and glorious tarpon, the *grand ecaille* of tropical waters, is usually a victim of its deadly grip.

THE TARPON OR GRAND ECAILLE
Megalops Thrissoides

CHAPTER VII

SELECTION AND CARE OF LINES

"TO be positive is to invite criticism" is an axiom ages old. And yet without positiveness one fails in many of the affairs of life.

The writer does not anticipate having this chapter pass without arousing the criticism of some individual whose interests may lie along lines adverse to some "don'ts" which will appear later on. But, as stated in the introductory chapter, he has no interest whatever in the manufacture or sale of a single item of fishermen's equipment, the desire being to get before the reader information which may be of most interest or benefit to him and which was learned through more than thirty years of earnest and persistent endeavor among our salt water tribes of fishes.

One of the most essential items of the fisherman's outfit is the line he uses, and doubtless not one of his requirements conceals as much uncertainty of merit. It may be said with open frankness that a majority of lines on the market to-day, commanding high prices, are far below a worthy standard, and in some cases are entirely unworthy of the maker's name they bear.

In the years past the name "Cuttyhunk" on the spool spelled trustworthiness; to-day it means nothing. Lines so branded may be bought at almost any price and the cheaper ones are frequently as reliable as those of higher price.

The line industry has unquestionably drifted into the hands of those whose motto is "quantity" rather than goods of high quality. This is not intended as a diatribe against all manufacturers; good lines may still be secured, but the market is flooded with the spurious article, so cunningly dressed with sizing and other deceptions that the very elect are thereby deceived. One of the first points of the salesman of to-day is to call attention to the breaking strain of the stock he offers. In so doing he is quite safe, and indeed he may be perfectly innocent of any intended deception, having in all probability never cast a line in salt water during his entire career. Even a fair line will, when filled with sizing which holds the twist tight, frequently show a high breaking test, but such proof is short-lived as the first wetting dissolves the sizing, the line unstrands, and you have on your reel a soft mass of material but little better than wrapping twine. All salt water fishermen have had such experiences and the memory is not pleasant.

There are, however, some well-made lines that have sizing to add to the smoothness of finish. This is inexcusable, inasmuch as when the line is really well

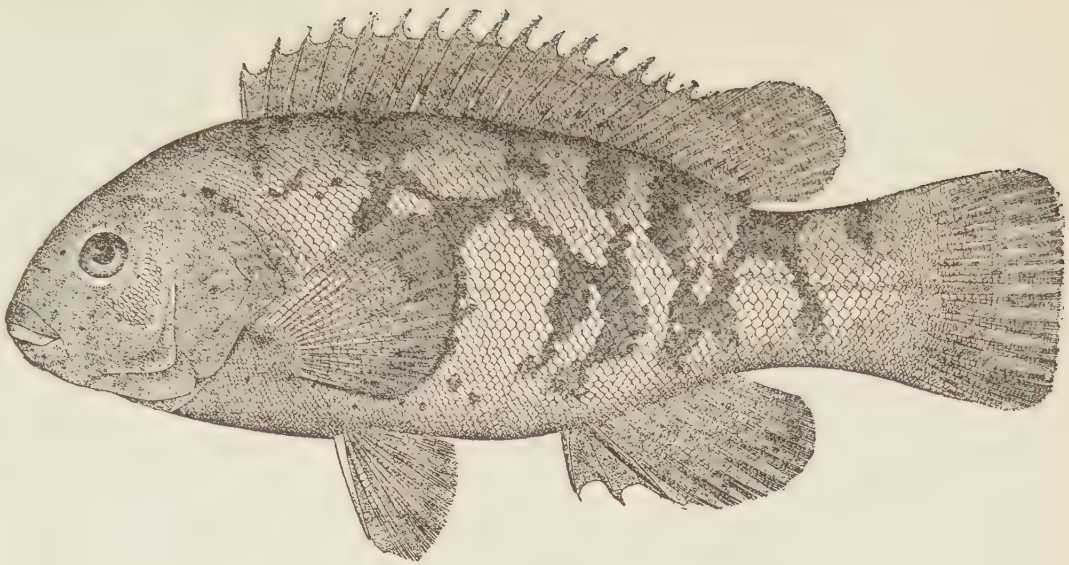
laid or twisted the sizing washes away slowly and it is a long time before the messy feeling to the hand is done away with. Furthermore, as the momentum of the cast diminishes there is a clinging of the line to the underlying strata which shortens the cast and is a fruitful source of backlash.

In buying a line good advice to follow is, reject anything that has the appearance of being filled with any substance to give a smooth finish.

Test for lay or twist by rolling an inch or two of the end of the line between the thumb and finger; then watch and see that it sets back in twist quickly. Next unwind a few yards from the spool and look for any little fuzzy ends that may appear; if you find them reject the line, it is made from short, ill-chosen fiber, and sizing is usually employed to cover such defects. In short, any finish other than the natural color and texture of the flax is put there for some purpose other than the benefit of the purchaser.

The argument that lines stained a dark green are helpful is not regarded as of much force in latter days. Tidal streams are usually turbid as is the ocean, and lines soon take on discoloration and are not unduly visible; while the vegetable dyes, such as are claimed to be used, in no way add to the life of the line.

The standard length of lines used in surf fishing is six hundred feet, which is ample. Occasionally a shark may run out that much in his first rush, but it is safe to



THE TAUTOG OR BLACKFISH
Tautoga Ohitis

assume that all fish liable to be met with may be turned before the length of line is exhausted.

It should be borne in mind that the surf, holding in suspension as it does great quantities of the finest particles of sand, will rapidly chafe and make rough the casting end and also there is severe strain where the casting length is at the tip. Therefore never begin fishing without first testing the end of your line at least ten feet back. It is better to spare that much in the beginning than to have it snap off in making the cast with the consequent loss of tackle.

A good plan is to run twenty-five or thirty feet of the line through a piece of beeswax before each fishing. This lays the fiber close and partially protects it from chafing. As all lines that are hard twisted have a tendency to kink it is well, before attempting to cast, to lay it out its entire length and then, holding it tightly between thumb and finger, run it on the reel. It will surprise one who has never done this to see the innumerable kinks and twists that will accumulate at the end as the line is reeled in. A second and even a third laying off is sometimes necessary to entirely free the line of kinks which are so very annoying in casting.

When the line is all laid out a helper at the extreme end to pull the line sharply a few times and so stretch it improves greatly its free-running qualities. A line so treated will usually pay off well and smoothly in the

cast and save many "wrinkle-hawks" later on. It should be remembered that the line should be left entirely free as it is being wound on the reel, as when it passes along the ground the slight friction will carry the kinks to the end, which will be observed to revolve rapidly as the end comes in.

Line manufacturers have a system of numbering their product as to diameter or size, which is at times confusing to the amateur, "regular" and "special" being the terms used which mean nothing to the uninitiated. The "special" lines have more strands to a given diameter than have the "regular" ones, but of much finer thread. Thus, a 21 thread "special" approximates very closely the 15 thread "regular" in diameter, while an 18 thread "special" corresponds very closely to the 12 thread "regular."

As these sizes are the ones in more general use than all other sizes combined, it is but necessary to remember the above simple instructions to secure the desired article.

When you have a satisfactory line treat it well; never permit it to remain tightly wound on the reel there to remain until wanted again. If you do it is prone to mildew quickly, particularly if the weather is hot, and your line will be ruined. Neither run it off to dry exposed to the blazing rays of a noon-day sun, as sea water is strongly impregnated with alkalies and, the line being saturated with it, the burning rays of the

sun quickly set up chemical decomposition in the flax of which the line is made and so utterly ruin it.

A good plan when possible is tō rinse the line thoroughly in fresh water immediately after use and then dry in some cool shady place, being careful to not let it rest on nails or any iron support while drying. If you do there is sure to be a rust spot where it comes in contact with the iron, and a ruined line results. There are many line-drying devices on the market, most of which are practical, but a little ingenuity will build one at home which will prove satisfactory in results as your line will smile back at you through faithful service for your thoughtful care.

Finally, never buy a braided line for surf fishing. While these do well enough when well made in fresh water fishing, they are worthless for casting from the beach and the writer has yet to see the first one give satisfactory results at this arduous game.

CHAPTER VIII

SOME FAVORITE FISHING RESORTS

PERHAPS there are but few questions more frequently asked during the fishing season than "Where can I go for a prospect of a good day's sport within a reasonable distance from the great cities of the East?"

Were it true that once a "good fishing" ground always a "good fishing" ground, then the answer would have been given many years since; but the changing conditions bring about results which in their turn produce other results, and all form a mighty chain of facts which requires the active brain of man to understand its forging and the reason for its existence.

I am writing now of our coast tidal waters and will try to make plain to the reader why once famous fishing grounds are no more so classed. There are but few states of the Union more favorably located as a fishing resort than is New Jersey. Surrounded on all sides by the great cities of other states, as well as possessing many within its own borders, it has for a long time been recognized as second to none of the states in its interests to the angler who has but a short period of

time in which to enjoy his favorite pastime or perhaps whose means are too limited to warrant his going to more distant fields. To the man of more leisure it is equally interesting as there are abundant stretches of water for the use of yacht or houseboat and fishing grounds innumerable at his hand.

That there is a marked diminution of our choice fishes in Jersey waters no longer remains a question. Thirty years ago there was a real plethora of many of the coastline fishes and they were to be had for the taking at most of the points along the entire state border. The Kill-von-Kull, Princes Bay and all the stretches of the Raritan were choice grounds for the angler as well as the commercial fisherman. The factories along the banks at the headwaters have contributed largely to the diminution of the runs of fish by discharging their poisonous and ill-smelling refuse into the waters; yet doubtless the greatest cause is the destructive methods of the purse seiners and the pound nets, which persistently set well into the inside waters and so serve to break up the runs of the gravid fish when endeavoring to reach their chosen spawning ground, as well as to gather in the fingerlings as they pass out in the autumn months. The same conditions obtain with many of the tidal waters of the state, and not to this state alone, but to many both north and south.

To the south of these waters is the Shrewsbury River,

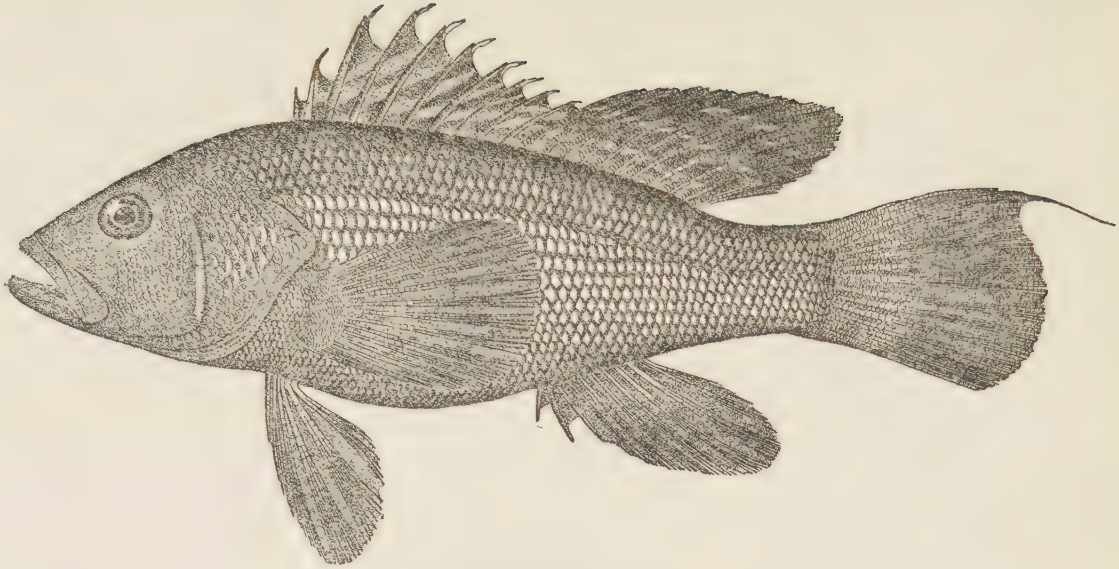
the north branch of which, reaching through Oceanic on to Red Bank, is to a great extent an unpolluted stream and the old-time fishing is to be had on many of its points. It is a very strong tideway and should never be ventured on without the assistance of one who is familiar with such conditions.

Beginning at Spermaceti Cove, which is well inside Sandy Hook, up and around Highland Beach, good fishing can be had at the proper season. This is particularly true in the autumn months when at the latter place good striped bass fishing is to be had by trolling slowly with "bloodworm" and spinner. Much the same conditions prevail at the Seabright draw, but it is quite useless to make the endeavor unless a good boatman is in charge, as the tideway is very strong. Farther up the river at Oceanic, and in fact as far as Red Bark, the finest of weakfish are taken fishing at the edge of the channel ways with shedder crab bait. Night fishing is generally productive of the best results here as then the waters are clear of all sorts of craft and the fish are on the feed at such times. The gray light of the early morning is also good and will frequently be found to give more real sport than the entire balance of the day. Fishermen should not be misled, however, on this stream, as what is known as the south Shrewsbury, which is merely an arm of the former, is shallow and contains no fish of interest to the average angler.

Following down the coast are many points where

good fishing is to be had from the beach. At Long Branch a pier is maintained extending more than one thousand feet seaward. Here during the entire summer fish are taken in their proper season. It is a favorite resort for many people who cannot cast from the beach direct. Striped bass, weakfish, plaice, kingfish and croakers are the kinds usually taken and when the runs are on are usually plentiful. Elberon, Allenhurst and Deal Beach farther south are famous as striped bass grounds. Many of the largest ever taken have been secured at these points, but beach fishing only prevails and the surf casting is necessary to success. Asbury Park, as well as Ocean Grove, maintains piers, but during the fishing season there are ordinarily such crowds around that but small comfort is to be had, particularly when the fish are there. Accordingly the wise ones do not as a rule make much use of these piers.

Shark River inlet is next along the line and furnishes a fine fishing basin on both sides, the north side at Avon being one of the best known points along the New Jersey coast. It is safe to say that for a period of at least forty years as many fish have been taken here as at any single resort along the shore. In the river proper conditions have materially changed from former years; where once deep channels prevailed now flats abound. This has been brought about by the many bridges thrown across the stream, and what is true



THE SEA BASS
Serranus Atrarius

of this river is true of many others. The railroads make a practice, when placing a new piling, of sawing off the old ones at the water's edge and allowing the ends to remain in the bottom. This, after many repetitions, forms a dam so that the sand which is carried in on the storm tides gathers there and is not removed by the less powerful ebb tides; thus the channels are blocked and the fishing grounds broken up. The basin to the south on the Belmar shore is also good fishing ground. A pier at Belmar is removed somewhat from the gathering crowds and gives annually better results than the ones to the north just mentioned; being near to an inlet also adds somewhat to the prospects as the fish are attracted by the outflow of fresh water which is continually coming down. Along the entire Belmar front are innumerable cuts and eddies which produce good fishing, and many anglers spend their entire time there during the summer and autumn.

South from here we get the Manasquan River with its traditions as well as its fishing interests. Legends of Captain Kidd are rife along its banks and sources. It is a river in truth and not merely an arm of the sea, as many of the so-called rivers are. In the days of long ago there was a good channel extending many miles inland and smuggling was carried on to an astonishing extent. Merchandise which never made returns to the custom houses was transferred at sea to coast schooners, and they in turn delivered it to the native

dwellers of inland towns. These were apprised of the arrival of the craft, which when unloaded took on cargoes of cordwood or hollow iron-ware of which there was a large industry at the headwaters of the stream. These well authenticated facts still cast a glamour around the name and place. It is, however, a fine fishing point and has a large colony built up along the beach near the inlet composed largely of fishing enthusiasts. The channel of the river has to a great degree been affected by the bridges thrown across, but it still affords good fishing where the proper place is known, as I personally saw some beautiful striped bass taken during the season of 1917 at least eight miles from the inlet, one in particular weighing above eleven pounds.

Just within the bend of the river near its mouth is one of the best grounds for plaice along the coast and has so been known for many years. Boat fishing for them is usually practiced and the use of the float and live bait the method. Point Pleasant along the south bank as well as its ocean frontage is too well known to need much description. It has from time beyond present man's ken been a favorite resort for the angling fraternity. The old part of the town, which lies about one mile back from the ocean front, partakes of many of the legends of the sea; and folks will tell you of the days when vessels were stranded on the bar, not altogether by accident or stress of storm, and

the spoils gathered in by the thrifty watchers, who, it is asserted, kept fires burning at times altogether too great in volume for the coldness of the weather. Bay Head, Lavallette, Seaside Park and Ortley are all good points at certain seasons for such fish as striped bass, kingfish, plaice, weakfish and the favorite bluefish when they are on the move shoreward. All these points can be reached by trains on the Central Railroad of New Jersey, as far as Point Pleasant when the Pennsylvania service must be taken on.

This carries us down to Barnegat Inlet to what is known as north point of beach. Here the largest of bluefish are met with, and, while they are not always in evidence, still there are but few if any spots along the coast that are productive of better results with this last named fish. Striped bass are taken here freely at times; while as a rule they are not so large as those taken more to the north, still they are met with up to thirty pounds, which is all the most enthusiastic should desire. And it is here that one of the many anomalies of fish life presents itself. This point seems to be the average limit of the northern range of the channel bass. While a few are taken each season much to the north, the great body of them do not pass this terminal, if so it may be termed. This is the great northern inlet to Barnegat Bay and is about one mile in width. A continually shifting channel makes entrance from the sea at all times hazardous for any-

thing but light draft craft. Both sides of the inlet are good points for the channel bass but the south side is undoubtedly the better ground and more acceptable to the angler as reasonably good hotel accommodations are to be had in close proximity, and the charges are kept to a moderate rate. This is known as Barnegat City and has long been a famous resort for fishermen. It is quaint to a degree and glories rather as a sportsman's rest than a summer resort. We have, however, in our stretch down the beach passed many good points for inland fishing within the bay proper. At times around the railroad bridge which crosses the bay at Seaside Park good weakfishing is to be had. It is advisable, however, to ply the art at night or in the very early morning as the water is quite shallow there of late years and the great oyster reefs which used to extend even farther north are now entirely covered by drifting sands.

I was much impressed during the summer of 1917 with the changed condition of the channel ways for more than fifty miles within this body of water. Where within the past ten years good channels were found, long sand bars now reach out and present shallows so that a launch of two feet draft has to proceed with caution. However, at certain seasons, particularly during August and September, fairly good fishing may be had by lovers of the inland style for weakfish, croakers and snappers at such places as Cedar Creek,

Tom's River, Waretown and many of the thoroughfares extending between the islands which abound in the lower reaches of the bay.

For the benefit of the stranger it may be well to explain that Barnegat Bay extends for a distance of possibly more than sixty miles north and south exactly parallel with the ocean, and is divided by a narrow stretch of sand varying in width from only a few hundred feet to not more than a mile and on this narrow neck of sand all the places mentioned for surf fishing are located. Occasionally a writer harks back to the days of fifty years ago and reminiscences of Ortley's and Chadwick's, in their palmy days great spots for duck shooting. I have been familiar with these places for more than forty years. The houses are still standing and are resorted to each year by many sportsmen, but have lost much of their prestige as the railroad and motor boat have broken up the old-time glory.

It is perhaps a quarter century since the writer made an appointment with Captain B to meet him at what is now known as Seaside Park, then a wilderness of sand dunes and beach grass, for a duck shooting trip on the upper reaches of the bay. Our objective was perhaps two miles below Ortley's, as previous arrangements had been made by the Captain for gunners and "stools," as decoys were then termed, to be assembled at that point. The day broke with threatening weather

and before noon a howling northeaster was blowing which increased with each passing moment. Neither the Captain nor gunners put in appearance, so I was compelled to take shelter at the only house which was located in that lonely region. It was a hostelry kept for the accommodation of such as might stray that way and who might for once put up with the comforts offered. The house was a two story structure built on short piles, or "puncheons" as they were termed in those days, elevated enough from the sand to allow the tides when high to ebb and flow through unobstructed.

I was met after repeated knocking by an individual of impossible description as to manners and appearance. While some details can be given, to convey to the reader his appearance as he met me would be impossible. He was thin to emaciation, blind in the left eye, and he wore a sprig of chin beard which would defy the cunning of an accomplished comedian to imitate successfully. His thin legs were incased in high cowhide boots and the few words which I was able to extract from him were pitched in a high tenor which might be characterized a "squeal." He, however, 'sposed they could take keer of me, and I was led into a dilapidated barroom with its rows of dingy bottles and their most questionable contents. His wife, a personage as uncouth as himself but of a sunny disposition and a strong tendency to be talkative, and a

daughter of perhaps fifteen years constituted the family. Both seemed to be timid in action as well as speech when in "pater's" presence and they enlisted my sympathy from the first moment. The evidence of poverty all about was so pronounced, it was with misgivings that I contemplated the forthcoming supper which was soon in course of preparation. Here was another surprise and a welcome one, for, while the table and its furnishing were commonplace in the extreme, the ham and eggs and hot biscuit were of the best and a savory cup of coffee gave zest to the whole

After supper all endeavor to draw mine host into a general conversation failed. Nothing but monosyllabic replies were to be gained; seated squarely on the middle of his back in a chair tilted back against the wall with one leg thrown across the other and hat drawn across the eyes, my host was a study for lovers of the picturesque in the genus man. Being tired and desirous of being about early in the morning if the weather was at all propitious, I was shown to my room about nine o'clock. I found bed and bedding of the same general sort as affairs below stairs; all was comfortably clean and in good order but had the appearance of long usage. How long I had slept I do not know but was aroused by a knocking on the door and the word "mister" called out by the daughter. On making answer I was informed that "Pop" had been took with "cramps" and wouldn't I come right down

and help "Mom"? Hurriedly dressing and going to the door of the downstairs bedroom I found the anxious wife applying hot plates to the stomach of the stricken man, who was emitting most plaintive wails while doubled up like a jackknife across the bed. Jamaica ginger and hot whiskies were plied with vigor and much frequency, but seemed to be of no avail. Finally I suggested the need of a physician and right there is where calamity overtook me. There was no doctor nearer than Tom's River and as the draw of the railroad was open during the night there was no way to get across the bay but to row across. At this point the width is over a mile—and the storm still raging! By the aid of a lantern of the same general type as the rest of the equipment I located a bank skiff hauled up on the shore and about one-third full of water in which were two oars. I say two advisedly, as they were in no sense of the word a "pair," one being nearly a foot longer than the other and of absolutely different caliber. Here was I with an outfit of the utmost crudity attempting to cross a mile or more of bay whipped into fury by the gale in search of a doctor living more than two miles inland, who would doubtless refuse to accompany me in such a craft back to the house of misery. The boat was so heavy that I could not tip it over to get the water out so had to resort to the slower process of baling. I was industriously engaged when the daughter put in appearance

asking me to come to the house as it seemed "Pop" was better. I did so to find the old reprobate quietly snoozing; the hot whisky had had the desired effect, or should I say the "desired" whisky had taken effect? But the mother and daughter were truly sorry for the trouble given me and I will say that under different surroundings they would both have been most excellent people.

It was most fortunate that I had a supply of dry underclothing in my kit as I was soaked to the skin by the deluge. I was soon in the land of the dreamers and was entirely comfortable when I was aroused by the most unearthly noise it has yet been my lot to listen to. It was a combination of roar and steam siren effect, which, in conjunction with the raging elements, made a nerve-racking mystery. Unable to endure the sound, once more I was out of the bed, when the knocking again occurred and the plaintive "mister" reached my ears. "I'm coming," I replied in a somewhat crusty tone. At the foot of the stairs were both of the females, who looked about "all in" from worry and disgust. "What in 'Tophet' has broken loose?" I snapped, as their gaze met mine. "I didn't know there was a steam whistle within miles of the place."

"It ain't, mister," exclaimed the mother; "it ain't no steam whistle, it's our hog. It's fast under the house somewhere." Here we were in the midst of more misery so the lantern was again lighted, and the

junior member of the family held it as best she could while I crawled under to relieve the distracted porker. Crawling very slowly by the dim light of the lantern to where the object of all the disturbance was located, I endeavored to get hold of its hind legs and either pull it out, or in two, I cared but little which. But when my hand touched its leg it was a signal for renewed struggles and the shower of sand which came flying from those two hind legs directly into my face and eyes was a thing to stand away from. The more I tried to get a firm hold, the more the sand flew and the louder that hog howled; and I never did pull it back, for spurred on by the approach of a stranger it at last succeeded in getting through its narrow confine. Safely out it turned around and looked at me with an expression in its small eyes which might be construed into "what business was it of yours anyhow?"

When I again awoke the sun was streaming through the window as the storm had broken. I went down to find the old man again sitting on his back, his feet high in the air and the hat down as usual. The evening menu of ham and eggs was changed to eggs and ham for breakfast with flapjacks and coffee. When I asked for my bill I was told to see "Pop" who was around the place somewhere. I went upstairs and packed up and when I came down I found him again "settin'." Upon asking him how much I was in his debt, he first

ejected a stream of tobacco juice through about six feet of space and to his credit made a bull's-eye of the spittoon. "Well," he exclaimed, "seein' as you was disturbed a mite durin' the night, a dollar and a half's 'nuff." This was the longest speech he had made during my stay and as he took the money he lapsed into his former attitude. He did not say good-by, nor did I.

The next resort below Barnegat City, of much interest to the angler, is Harvey's Cedars. Here perhaps as much rest and solid comfort are to be obtained as at any spot on the coast which caters to the sporting fraternity. A most commodious hotel in all particulars is within eight minutes' walk of the beach, and as long as the present proprietor remains, the sportsman, be he shooting or fishing, is assured of every creature comfort as well as the most genial treatment from both the proprietor and his wife. It is a pleasure to say that owing to her cordiality and care of the patrons many of the anglers take their wives along where, carefree, they can fish or rest to their hearts' content. There are but few places along the coast where better fishing is to be had and it has been so recognized for many years. Channel bass, weakfish and bluefish are usually to be taken there if these fish are anywhere present along the coast.

Surf City, Ship's Bottom, Holgate and Beach Haven are all recognized as good grounds and may be reached

by the Tuckerton Railroad, under control of the Pennsylvania system. After the points mentioned comes New Inlet; this is fast becoming the Mecca of the enthusiast. Its name arises from the fact that some twenty years ago the sea cut through the beach into what is Egg Harbor Bay and has since maintained a perfect channel way, greater than the old inlet which is some miles farther south. Its one serious drawback is its inaccessibility. The nearest point by train is Beach Haven from where a boat must be taken for seven miles. This is the only present method of approach. At the journey's end there is not a trace of civilization —nothing but a small harbor light maintained by the government at the edge of the sand dunes. But, when once there, conditions are met with unequaled on the entire coast. No matter if the wind be blowing a gale from any of the points of the compass, fishing can be done from some one of the other points.

The inlet proper is perhaps three-quarters of a mile in width and maintains a depth of at least fifty feet within easy casting distance from the beach. The peculiar action of the current creates what is termed a "tide rip" which sets in from one direction at flood tide and the exact opposite at ebb, so, no matter what the condition or the stage of the tide, good fishing is to be had. It can be said of a surety when fish are along the New Jersey coast they are at New Inlet.

Ocean City and Corson's Inlet are both good places

at certain seasons and at both places accommodations can be had for individual or family. They are visited each season by multitudes of fishermen. Anglesea and Somers Point also have their attractions and are much frequented. Being easy of access, they are popular.

While the grounds to the north, such as Montauk and Block Island, are most excellent, they are rather exclusive and do not furnish the freemasonry which exists among fishermen along the more southern waters of the Atlantic coast.

CHAPTER IX

WHERE CURRENTS MEET

THE above caption is intended to convey the thought that tides and currents are in a general sense relative in their operations. That is, while essentially different in origin, the results they produce are practically identical, each transferring from point to point the various substances they have in suspension, and depositing such where depressions exist or continuing to whirl them about indefinitely.

Ocean currents, while as well defined in their actions as those of rivers and lesser streams, are of most mysterious origin and totally defy any accurate computation as to their continuity in a given direction. Their erratic action is a puzzling phenomenon to the best versed surfmen and, theorize as we may about the matter, no one has as yet given a satisfactory solution to the problem.

To those who have done bottom fishing well "off shore" this matter is of common observation. While there may not be any appreciable movement of the water for a long period of time, suddenly it will begin, and within a few minutes it will be impossible to

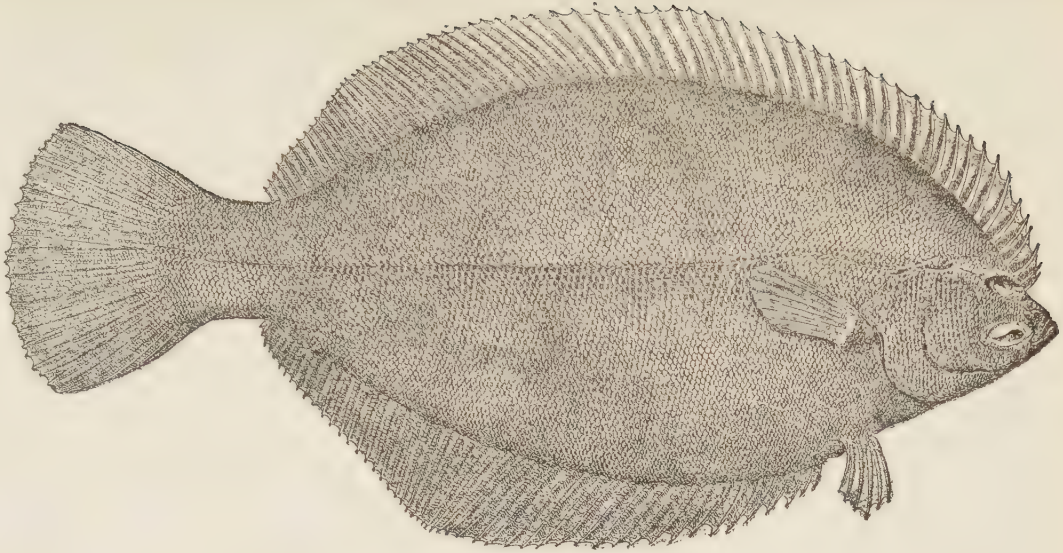
keep the bait to the bottom even with the aid of the heaviest of sinkers.

The argument that this sudden transition is caused by the changing of the tide on the beach does not seem to be well founded as the following day, at a corresponding hour, may produce as strong a flow in an opposite direction or, again, there may be no current noticeable, even with all weather conditions identical with those of the preceding day.

Each phenomenon in nature is due to a cause which produces the effect we observe, but so subtle and so erratic are the actions of ocean currents in their goings and comings that "mere man" is left to conjecture.

For many years I enjoyed the intimate companionship of a good—perhaps the best—surfman and offshore fisherman on the New Jersey coast. His fame was wide—and justly so. His knowledge of the ways of the waters as well as the "water folks" was unbounded and at times seemed almost uncanny. No reef, ledge of rocks, or sunken wreck but could be promptly located by him, no matter how far off shore, if weather conditions were good.

He held many acknowledgments of service from the United States Government, as well as tributes from notable men to whom he had given sea service. As before stated, it was my good fortune to roam the seas with him for many years and, keen observer that he was of all things pertaining to the sea and its in-



THE FLATFISH OR WINTER FLOUNDER
Pseudopleuronectes Americanus

habitants, he could in no way account for what he termed sea-runs. We discussed them long and often, and he never could be induced to prophesy what current we would encounter at any point at a given hour. His usual reply to inquiries on the matter was "guess-work."

Mysterious as the cause may be as to the origin of these currents, there is no doubt as to the results they produce. No matter how well fish may be taking the hook, when the drift or run sets in they will at once cease their activities. At this stage it was the old observer's hunch to remark, "Now if we knowed where the eddies of this current was, we'd find the fish there."

All of which is to illustrate the fact that, no matter where eddies or tide swirls exist, there the angler should ply his art. The surging of the tide over bars along the beach creates swirls and pools in the basins, or what are generally called "slews," so that at all such places nearly every variety of "coast ranging" fish is to be met with. The reason is obvious. Shrimps, clams and other foods are swept into these pockets and are there partaken of by their roving enemies.

This also applies to rocks, old wrecks and kindred places in tidal waters of rivers and bays, as the action of the circling water creates deep pools into which food of many kinds is of necessity carried.

It would be a matter of surprise to many inexperienced could they but see how many of our deep water

fishes perform long journeys to the point where salt water ends and mingles with the oncoming fresh water.

Of course the habits of anadromous fish as the shad, salmon and others are well understood by most people, and need not be mentioned in this connection, but striped bass, weakfish, kingfish, as well as many other varieties do periodically run up to and frequently well into fresh water. In taking such fish from these places at tide headwaters unusual precaution is necessary, as they seem to be wary and sensitive to sound to a marked degree. If fishing from a boat any article dropped on the bottom which sets up vibration is almost certain to be disastrous to the sport.

Argue as we may that fish are not influenced by sound or affected by it, certain it is, however, that anything which causes vibrations or sound waves, if we may so term them, through the water will cause fish to at once quit taking the bait.

That most fish are endowed with an element of curiosity must be accepted, as many of them will strike at lures of which there are no prototypes in nature when such are trolled rapidly through the water, showing that it is sheer curiosity or a desire to drive the stranger from their haunts that prompts the action.

Black bass adherents urge that it is anger at the invasion of the domain of the bronze-back warrior that compels his vicious assaults on the "nondescript" plugs and other devices cast for his destruction.

Whether this be true or not, of one thing we can be sure, that most fish when on these wanderings far from their usual haunts will take lures which must be unknown to them when in deep waters. The striped bass will rise to the artificial fly, when in these semi-salt water retreats, if cast for him under proper conditions, a feat which I greatly question being possible when on the coast ranges. I have seen the shadine, that preëminently salt water fish, taken on a white duck's feather whipped to a simple hook and cast over the eddies and swirls caused by the currents around bridge pilings. That this fish could know aught of white millers or kindred insects is not to be considered when we regard the habits to which it so closely adheres. And so we must admit the element of curiosity in this particular case.

Many pleasant surprises await the angler if, upon finding the fish "off duty" in the surf, he will but resort to the headwaters of bays and other arms of the sea. The thoroughfares running between points of land in many of our bays—which, by the way, are but channels of the same body of water—are at times the best of grounds over which to fish. It will be noticed by any thoughtful observer that such channels are but tortuous routes and wind around points of land continuously. At each point a deep pool is naturally formed by the action of the waters, and trolling or still fishing around and over such places in the

early dusk of the evening or during the early morning hours will usually give good results. But if possible troll, and troll slowly, with a bright spinner just ahead of the bait. I have frequently taken beautiful striped bass from such places when, to the uninitiated, such a thing would be deemed impossible. But always remember that quiet must be the order of things, and the troll must be permitted to run as far behind the boat as it can be well manipulated.

Again, where fresh and salt waters meet there must of necessity be deep pools formed by the unequal flow of the waters, as at times there will be heavy rain falls, creating a rush of water down the stream which will be met by the tide moving up. At all such places there are fine prospects for fish, and very good ones too.

How greatly salt water fish feed on the different fresh water shrimps and snails which are carried down cannot of course be determined, but we can be sure that food in abundance is there which suits their fancy at different seasons of the year. Crabs when shedding seek out all such places to avoid their enemies in the more frequented channels. Shrimps also swarm there for like purpose, unconsciously baiting the grounds, and fall victims to their own devices for safety. So no matter whether fishing in the ocean or over inland tidal streams it is always well to bear in mind that where "currents meet" and the water is churned about,

that spot is more than likely to produce some much coveted prize.

If we will but take our minds from the great things of the sea for a period and allow them to dwell on the humbler species of the sweet waters, we must in fancy see the freckled face of the barefoot boy "who knows" light up as he approaches the favorite pool in his beloved stream. He never wastes his time in other places. His bait is cast behind the old log where ripples are breaking into foam, or he may stop for a trial just where the water is whirling around a sod point in the meadow. There is where he is accustomed to meet success, and he is logician enough to have long since determined where "best" results are to be had.

It is an old saying that the earth is but the daughter of the sea, and these ever changing, never ceasing currents and consequent eddies produce the best of fishing as well as form new points of land of which the importance to man is but little understood.

CHAPTER X

WARNINGS OF THE OLD MAN OF THE SEA

THAT old timers by the sea were observant of all conditions of tides and weather, and that close watch was kept on the results of their endeavors under the varying conditions is a matter of certainty; for there is a marked principle of truth in their old lyrics and doggerels. Many years spent in close association with the hardy toilers of the sea have taught many lessons which have been of practical usefulness, although much superstition runs through all their quaint sayings and beliefs. To many of them even among the younger generation the "Mermaid" is an actuality, always placed in their minds among distant islands where their plaintive cries can be heard and where "Mermaid" habits can be observed on occasion and under certain weather conditions.

Certain it is that "deep water" sailors delight in drawing the "long bow" when relating incidents in their lives, and it is small wonder that such stories should find lodgment in the minds of the unsophisticated men and youths who go down to the sea in quest of its finny inhabitants. Neither is it an easy matter to

unlearn such, as they revel in the uncanny and "gran'-ther's" lore is to them a most precious heritage. Despite much which is of the most absurd character in their beliefs, there is an education which has been gleaned from the hard school of experience which is their lot that does not admit of question or ridicule. "Gray water will not give us fish" is an old saying and it has been proven true on so many occasions that it no longer is regarded as a myth. Just what causes this condition in the water is not known, but every student of conditions which surround him knows there are days when all tidal waters run "gray." This condition usually obtains at very high tides, and may be caused by minute particles of sandy deposit held in suspension by the strong tide sweep, thus in some unknown manner causing the fish to suspend their usual activities.

When the wind is in the north
Fishermen will not go forth.

When the wind is from the east
Fishes then will bite the least.

When the wind is from the south
It blows the bait in fishes' mouth.

But when it swings into the west
Then it is they bite the best.

That this theory is strongly probable is shown by the fact that this condition rarely lasts more than two tides and sometimes dies away on the last of the ebb of a single tide. The "Harvest Moon" tides, however, sometimes give us this condition during their whole period. This is the full moon tides of August and, if accompanied by easterly winds, will give the strongest of tides during the full moon phase and it is of but little use to ply the fisherman's art during that time. "Breeding water" is another season of discontent among the old-time deepwater fishermen, and it is not idle complaint, for at this time but little success crowns his endeavors. This condition cannot be seen at the surface of the water except when it is quite still and but little wind blowing.

Just why this term should have been applied there is no knowing, neither is there any record of its origin; like so many other subjects it has been handed down from generation to generation, each in its turn making its own observations on the "phenomenon," but in the main holding sacred the sayings of its predecessor. "Breeding water" is characterized by a breaking up to the surface of a continuous stream of minute bubbles, myriads of them in each cubic foot of water, resembling closely water just at its boiling stage. That these bubbles are gaseous in character there is no question, as they apparently burst on contact with the air, and that they are the result of fermentation of vegetable

substances would be but reasonable to assume, as they are generally to be observed over muddy bottoms of rivers and bays, and doubtless the same condition obtains at the bottom of the ocean when the "phenomenon" is observed at the surface. Certain it is, however, that fish will not feed during these periods or at least where these conditions prevail. I have frequently met with it many miles at sea and the result has always been "no fish."

The influence of tides, too, plays a most important part in fish activity; as is well known, they always lay or work against the current. In this they have a double purpose; one doubtless being that they are more comfortable in that position as they can more readily retain their equilibrium, the other being that their food drifting with the current is so much more readily secured. So, in bay or river or on the beach front, the flood or incoming tide is regarded as the most opportune.

Sometimes, however, fine catches are made during the ebb tide, which may be owing to some peculiar eddy which sets in around a bar or point of flat and is not in action during the flood, and so the small crustaceans and other fish food are brought to view only at these times, but it can never be accepted as a hard and fast rule to work by. Tides always make from the bottom and are surging around the bars long before the water stops running ebb at the surface. To the "not closely

THE ATLANTIC TOM COD
Microgadus Tomcod

observant man" fish will frequently begin striking while the tide is still running ebb and at its very lowest stage. This in reality is not so, as the young tide at the bottom is working out food which attracts the fish, though the movement of the bottom waters is not observable at the surface.

While it is true that good catches of roving fish such as the bluefish are sometimes made at low water, still it is not the rule, as such fish frequently strike their prey well at sea and in the pursuit rush them to the beach no matter what the stage of the tide may be. Should it be low water then, the fisherman fortunate enough to be on hand will get his fish, but in no sense can it be an argument that low water conduces to the best result.

To fish from the young of the flood through to high water and one quarter of the ebb, then quit, is a safe rule whether it be on tidal streams or on the beach front. And he who follows it through the seasons will get the best to be had.

That the moon exerts a powerful influence on all tidal waters is a matter of common knowledge, and that a light moon is always favorable to the sport is acknowledged. But a precept rife among the wise ones says: Never permit your catch to be exposed directly to the moon's rays for any considerable time. That fish will deteriorate rapidly is well known, owing doubtless to the phosphorus in the flesh which takes on some

chemical action induced by the strong rays of light. If fishing from a boat a locker should always be provided for the catch. If on the beach some covering should be improvised.

In studying tides for inland fishing much allowance must be made from the tables as printed in the daily papers. These are based on the stage of the water at the bar in the ocean. While they are accurate for that point, still the water will continue to run flood for at least two hours after high water on the bar and will run ebb at least three hours after low water mark. This will be found to be a very close calculation of tidal streams along the middle Atlantic seaboard, during normal tides. Winds, too, work their influence on the inhabitants of the sea. Usually all surface fish, or, as they are generally termed, free swimming fish, work their way against the wind; that is, if the wind is blowing from the west, their movements are toward the west. The reason for this is obvious: as the small fry find their way along at the surface influenced by the wind and assisted somewhat by it, the larger and more powerful fish meet them in their travels, thus, as it were, having the food blown into their mouths, to their great convenience. Winds exert some unknown influence on the bottom feeding varieties also, as it is well known that a southeast wind is always productive of slim catches, and the angler of experience will prefer to remain away from his favorite haunts during such

periods. While it is known that the striped bass will at times take the hook freely during a strong easterly gale, still it is after such a blow, with the wind veering suddenly to the west breaking against the incoming seas, that this sport is at its best. Like every other subject, given rules sometimes do not hold, but in all salt water fishing when the wind is in any of the westerly quarters success is more certainly assured.

Volumes could easily be compiled from legends of seafolk, and tales as weird as "Sinbad" are ever rife among the present generation as to how, when and where the marvelous came to the actors on the scenes of long ago; and, like Banquo's ghost, they will not down.

That there is a language of the sea I personally will admit; I have heard it and am entirely unable to account for its origin, but right well I learned its meaning many years since. I was fishing several miles at sea with as proficient a surfman as ever launched a boat. The day was all that could be desired, and fish were biting good, when quite unexpectedly my boatman dropped his tackle and covered one ear with his hand while he used the other like a cup to the other ear. Standing in absolute silence for several minutes, with an expression on his face not exactly encouraging, he queried, "Hear that? The 'old man of the sea' is about." I had heard nothing unusual and was mystified, as I had never judged him to be

in the least superstitious, having roamed the sea with him for many years and nothing of that nature had ever before been heard by me. In answer to my question as to what he meant, as it was easy to see by his expression the matter was no joke so far as his idea was concerned, "Listen a moment," was all he said; when, sure enough, from somewhere in the universe, from the air around about us or from the waters beneath, came the most gruesome, indefinable something —whether a moan, or wail, or combination of both I have never been able to characterize. Certainly it was quite unlike any other sound which had ever greeted my ears, uncanny and chilling to the spirit of man to the last degree.

"We'll quit right now, and there'll be trouble on the bar long before we can make the trip in," was my mentor's remark as he began taking in anchor line. "I have never heard the old fellow talk as plain as he did just now without finding trouble abroad for water folks." The moaning, if such a term may be used, was now continuous, and the sea began lumping up; not the breaking swells, such as are seen from the beach, but just big lumps of water coming from the unseen depths, and rushing here and there to finally dissolve themselves into larger ones which fret and torture the surface until all is one mess of troubled waters.

True to his prediction, the conditions at the bar

as we approached were appalling: a long line of breaking foam dashing high into the air was to be seen and tumult was everywhere. What had caused this condition on a perfectly calm day? No one can answer the question. Just one of the idiosyncrasies of the sea. Perhaps some mighty convulsion of volcano or earthquake had set the water in a troubled frame, and we were pigmies in a cockleshell, a plaything of the waves.

The lifeguards on the beach had noticed our predicament and were preparing to give us assistance, but to launch a boat from the beach was a mad project at best, if indeed it was at all possible. At this point the fine qualities of this trained surfman showed to great advantage. Running our boat back of the bar just at a safe distance from the dashing spray, in ever narrowing circles with engine at full speed, his eye taking in every current between us and the beach, he was a statue of sublimity if not of beauty. He posted me with one foot on the gunwale of the boat, his injunction being, "When I say *go,* jump; no matter where we are, or what you may think; it may be that luck may fail us, but it is our only chance, as the boat most likely will 'pitchpoll' or turn over, not sideways, but endways between the bar and beach; so when we go over the bar hold tight, but when I holler, *jump,* do it quick."

I will always remember vividly the thrill as the whirring engine drove the craft into that maelstrom of

waters when he decided the proper moment had come to make the endeavor. There was a blinding smother of foam. A dim recollection of something under my feet which was standing on end one second, the next rolling on its side and at last the command, "Go." There was water all around when I leaped, but the momentum carried me away forward. I struck firmly on the sand. The next second a curling wave struck me, sending me headlong into the brawny arms of a lifeguard. My companion stuck to the boat and was landed high and dry, although badly shaken up.

Had the trip ended fatally for either of us the fisherfolk would have had another legend of the warning of the "old man of the sea" which, while uncanny and not well to be described, is of course a result of some natural cause produced by action of the atmosphere when the water is at a pitch of excitement not yet to be observed. But it apparently comes from nowhere, and yet is all around and about you at the same instant.

If something of the unnatural is mixed up in their ideas of deep sea affairs, not so with their views of wind and weather, for the seafarer who cannot tell you to a nicety as to the weather to-morrow is not to be found. Wind directions and weather conditions are read at least twelve hours for the future by present signs. To them "mackerel skies" and "mare's tail clouds" are as readable as a child's book in relation

to the winds of the morrow, while sunset glows and sunrise reflections harbinger coming dry or wet weather. So into infinitude might be carried the lore of sea folk, much of it just handed down from time to time, and much of it, again, smacking of the most profound accuracy which might only be learned by long association with the mighty, mysterious deep.

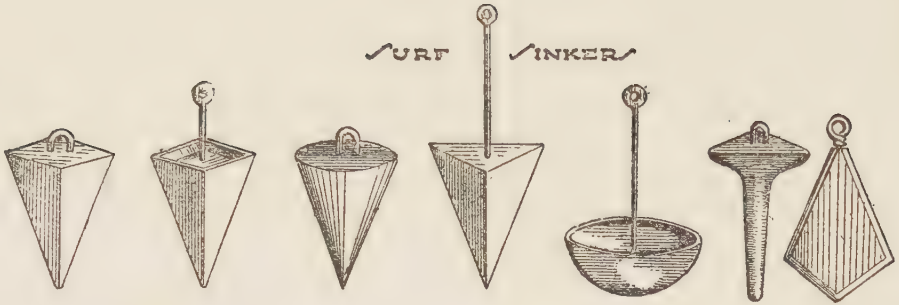
CHAPTER XI

SURF CASTING SINKERS

THE evolution of the casting sinker, one of the important adjuncts of the surf fisherman, is the result of much painstaking endeavor and thought. To the layman, it would seem that almost any object of proper weight would fulfill in a satisfactory manner the service for which it is intended, and that the many designs which have been on the market at different periods are only whims—the product of finnicky ideas. Not so, however; each of them was designed by its progenitor to fill some important and special function.

A stone sinker obtained from the Seminole Indians of Florida many years since, goes back untold years. It conveys but one idea, that of carrying the bait to the bottom. It is made from a porous substance, evidently the coquina rock, weighs about one and a half ounces, and has, as can be seen, a carefully formed neck or groove around which the line might be fastened. This may be regarded as a most primitive example and is an interesting and valued object. The next is what has long been known as the bank lead, one of the oldest types of casting sinkers known, and,

in some respects, the best that has ever been devised. It is the only style used in all casting tournaments. As its shape denotes, it has the proper projectile proportions and the atmosphere offers but little resistance in its passage. Being heavier at its forward end, when in flight it never wabbles and so is a general favorite. It has the weakness, however, when used for fishing where there are currents, of not holding well, as the smaller end to which the line is attached tips upward at the slightest pull thereby getting no grip at the bottom and so drifting with the current. The old diamond or, as it was termed in early days, the kite sinker, has much the same properties as the bank sinker—it was designed to give suction at the bottom but was faulty and never at any time a great favorite. The "pitcher" casting sinker which was so long in use had the bad quality of rolling with the slightest current. This type was later flattened on both sides, making a marked improvement over the old "pitcher" and was in general use along the entire coast for many years. But, like all its predecessors, the line was attached to the light end and so when any strain was applied the nose was raised from the sand, thus permitting it to drift about. This condition continued until some genius evolved the "pyramid" with an eye attached to its base. The utility of this is at once obvious to the practical mind. Here, the line being fastened to the center of its base and the lighter end being out-



Courtesy of Forest and Stream

SURF CASTING SINKERS

ward, when stress is put on the line by the current or a pull from the rod the sinker, instead of tipping upward, burrows in the sand and so adds greatly in keeping the bait where placed.

The "cone" is a modification of the "pyramid." Being a *perfect* "cone" it has the great advantage of offering no square surface for a current to play against; besides, it burrows in the sand much more readily and so holds better. This type has come into favor very rapidly within the past five years and is to be found in the kit of all practical fishermen. It was introduced by James M. Gentle, of Asbury Park, New Jersey, although not originally designed by him. The "spike," the latest design to appear, holds well in the sand but is so erratic in flight caused by its peculiar shape that it is much to be doubted if it ever gains any real popularity. Of freaks there have been legion, one of the most pronounced being the mushroom sinker. This device was correctly named as its form was identical with that of the luxurious fungus, with the stem proceeding from the hollow or cup into which the line was fastened. The idea of the originator was to anchor the bait where cast. In this he exceeded his utmost hopes, for when fishing in the surf the cup-shaped device sank so deeply in the sand that it could be extracted only with great difficulty and many broken rods were the result of its short life. So it has gone the way of so many other impracticable things. The

desirable thing is to have a sinker so constructed that it will hold against the draught of a fairly taut line and can be liberated readily when a fish takes the bait. At the present time there is nothing more practical than the "pyramid" and "cone" forms with the latter a strong favorite. In weight, the four ounce is the most popular, and under all ordinary conditions will be found ample. To use a heavier one puts undue strain upon the rod and gives but little if any advantage, as where the four ounce will not hold a line of usual size the heavier one will also be found at fault. Again, the greater energy required to give the initial momentum in making the cast tends to cause the spool to slip under the thumb and so retard the cast. Just what inventive minds may develop in the future is of course merest conjecture; we have become fairly content with what we now have, but in common with other subjects some brilliant idea may flash forth and we will at last be furnished the perfect casting as well as holding sinker.

CHAPTER XII

THE RAPIDLY VANISHING SHEEPSHEAD

LIKE so many other species of fin, fur and feather the sheepshead is rapidly becoming extinct in our northern waters. Many places which produced them in abundance but a few years since now know nothing of them. That it is owing to scarcity of their favorite food is not to be considered, as there is no lack of such commodities, mussels, shrimps and all the lower orders of crustacea being their natural prey. It is most rare at the present time to find one on sale at any of the market places where in former years they were plentiful, and rarer still to have one on the hook. This condition seems to prevail down to and including the Chesapeake, while south of there they are in all their former abundance. This particularly applies to the St. John's River and points south. I have met with them in great abundance in the Halifax River, and fishermen along all the points say they are not aware of any growing scarcity of the fish. There are multitudes of present-day anglers who would scarcely recognize this species were they to take one on the hook, and but few are aware of the method necessary to their successful taking by the salt water anglers.

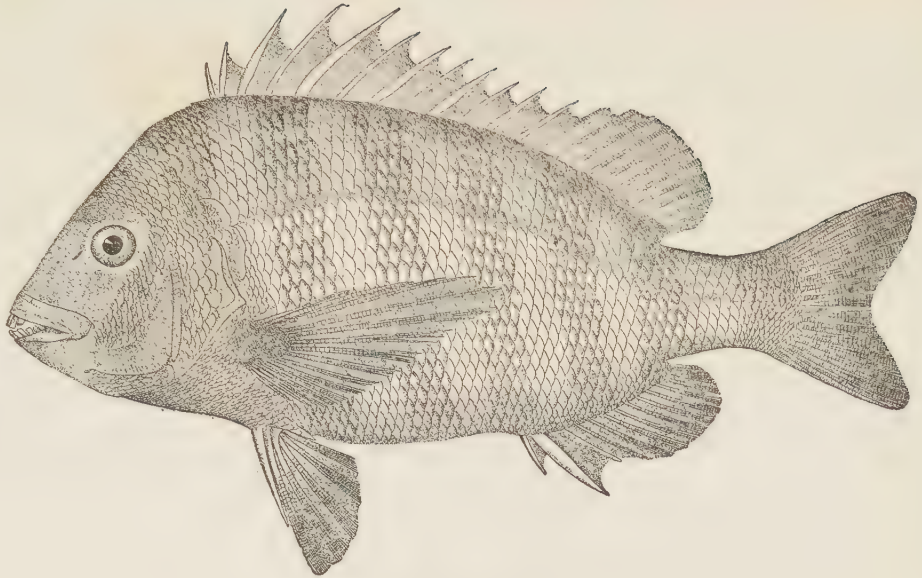
What, then, is the cause of the growing scarcity of this most desirable species? The answer is most difficult; and, contemplate it as we may, the only solution seems to lie in the fact that the tremendous increase in netting all along the seaboard may be the answer. While like all of the salt water tribes the sheepshead has its natural enemies, still it is scarcely to be conceded that this has caused the great diminution. We should look rather to some more potential reason. It is a well-known fact that the sheepshead will not remain in water cooler than about 60 degrees as old-time fishermen all agree that when unusually cool weather came on early in the autumn the sheepshead always disappeared, not to be found again until the following season, which would indicate that they are extremely sensitive. It is a great pity that so glorious a fish both on the table and on the hook should be growing extinct in northern waters.

Twenty years ago the oyster reefs in Barnegat Bay were a favorite place for their capture as well as all similar points along the New Jersey coast, and to the market men they were always most welcome as they commanded a high price and the demand for them was always greater than the supply.

There is quite a diversity of opinion among observers in relation to some of their habits, particularly in relation to their ascending streams above tide-water. Some assert positively that they do so, while others—

the great majority of fishermen, both amateur and professional—do not agree with the above statement. Personally I have never met with one above the salt water limit. That they do ascend to a considerable distance from the inlets is well known; I have met with them as much as twelve miles from the ocean and am assured that they ascend to much greater distances. In fact, wherever old wrecks of vessels or piling are to be found in streams which they inhabit, they may be looked for with confidence.

As to their spawning habits in northern waters but little or nothing is known and I have yet to meet with the first observer who has information on the subject. It is well known, however, that when they first put appearance in the northern waters they are quite thin and flabby of flesh, but soon recuperate in these waters. These fish take their name from the close resemblance of their heads to the mouth and teeth of the sheep. The incisor teeth are identical; these they use to great advantage in cutting loose from sunken materials barnacles as well as the young of the oyster family, of which they are especially fond. The sheepshead are stockily built fish having much the same lines as the common sunfish, and range in weight up to about eighteen pounds, although one of more than twelve pounds is considered a large fish. In color they are gray, with five distinct darker bands of grayish black encircling the body. The immature members of the black or gray



THE SHEEPSHEAD
Diplodus Probatocephalus

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drum have been frequently taken for the sheepshead as the former, when of from five to eight pounds in weight, have similar bands, although always seven in number. They are easily distinguishable by the experienced as the head formation is entirely unlike that of the sheepshead and the difference in the number of black bands is another guide. Should the mistake be carried as far as to permit the drum to reach the dining room then the mistake would at once be most apparent, although in justice to it, it should be said that the young drum is a most excellent chowder fish.

Considering the limited supply of this fish it might seem idle to follow out closely its habits and the proper method of its capture by the angler. In controversion it must be urged that in view of the ever changing habits of fish it may return to northern waters in future years in all of its former abundance, when it will be a joy to the novice as well as most heartily welcomed by the veteran who so well knows the delights of his capture.

This fish is one of the very few which is known by one name wherever it is met with so that both north and south when the subject is mentioned there is never confusion as to what species is under discussion, although the southern custom of pronouncing it "sheephead" is quite universal. Owing doubtless to grounds over which it feeds, the southern fish quite commonly takes on a distinct yellowish or creamy tint.

As the method of taking them on the hook is the

same whether in northern or southern waters no special distinction will be made. They are occasionally taken by the angler from the beach, but in latter years it is of rare occurrence.

The best authorities are agreed that this fish never passes to the north of Cape Cod on the Massachusetts coast and is rare at that point, but as more southern waters are visited its abundance increases. In all the inland tidal waters where good depths are to be found, there the sheepshead may be met with, provided oyster reefs are present or old wrecks are sunken or any débris of a permanent character lies where the current can create an eddy. It seems to be quite useless to try any bait other than shellfish for them as they subsist entirely on such food. Having located the fish the angler should, if he has the time, select the most likely spot, namely along an oyster reef or some submerged object, and row quietly to the spot, taking with him, say, a peck of either hard or soft clams having the shells previously broken, and scatter them over the grounds. Two or three days later the same program should be gone through with again; this has a tendency to attract the fish which in turn attract many more; then when the ground has been well baited by three or four such visits fishing may be tried with confidence, fishing always between extremes of high and low water.

The tackle should be of medium weight but strong,

as the sheepshead is one of the wariest of fish common to our waters. It is well if the boat can be tied to some piling or other object as the casting of the anchor in any but the quietest manner may startle the school if they are near and no results be secured. A medium weight boat rod, with a 1-0 multiplying reel and a 12 thread line of the best quality, are essential, with a sinker heavy enough to hold the tackle to the bottom so it will not run with the tide. A short stout leader of at least four ply must be used as anything lighter might easily be severed by the rough bottom on which sheepshead invariably are found. As to the hook which is the most essential part of the outfit, this must be of the best possible quality. While the O'Shaughnessy is good and will stand any amount of rough treatment, still what is known as the Virginia blackfish hook is most admirable. This hook has a very low point and is made from heavy wire, and when properly tempered is beyond all doubt the best hook for this fish. The snell on the hook should be of the best gut and at least four ply, as the work required of it is strenuous to a degree. As these hooks ordinarily are marked quite differently from other hooks the number which corresponds most nearly to what is known as 5-0 with standard make of hooks will be about right.

Now as to the main endeavor—having reached the desired grounds and cast the anchor quietly overboard, the utmost quiet should be maintained in the boat.

While the latter rule applies to all kinds of fishing it is a positive essential here. As the ground has been previously baited the same should be used in the way of bait on the hook. If clams, crack the shell slightly all along one side and insert the hook in one of the cracks, passing it well within the shell, then quietly lower it to the bottom and await results. This is rarely a game where immediate response is given to the endeavor as the sheepshead is rather a sluggish fish in its movements and very deliberate in all its doings. There are two reasons for using the bait with the shell on—one is it more nearly approaches the condition under which the fish ordinarily gets its food, the second is there is no annoyance from the small bottom nibblers which always abound on such grounds.

Patience, that prime virtue in the angler, will be required now. A long time may elapse before any intimation is given of the presence of a fish and when it does come, unless the angler is fully alive to the nature of the habits of the fish, it may well be considered of little interest as the sharp strike of so many of the salt water fishes is always absent. The bait is most gingerly taken up and may be laid down half a dozen times until the tyro might well be convinced that nothing of importance is at the hook; but the thought must be kept in mind that but few fish will take a bait of this kind, and that the chances are a hundred to one that the fish sought is at hand. To strike at once when the first drawing motion

is felt would be to miss every fish. It is true that it requires considerable self-control to remain inactive when one knows that a choice fish is at your bait, but in this case it is essential. The conditions are to remain perfectly quiet as the fish from time to time nudges the bait along and so imparts a drawing motion to the line. He is doing the very thing you most desire, working the meat from the shell and consequently the hook in good time will be taken in.

The proper time to strike is when a pronounced run is given to the line. The fish has the hook and the strain given to him as he attempts to move away has given alarm to him. Set the hook firmly when it is sure he has fouled with it. The moment this is done, take my word for it, the man who has never taken a mature sheepshead has a genuine surprise in store. Like lightning this fish, who has been so deliberate in all his actions, goes from side to side, rarely making any long runs, but he makes up for that in quick doubling and turns. Watch the water closely now; if not more than ten or twelve feet in depth muddy streaks will soon work to the top. The fish is rooting on the bottom in order to release its bondage and will continue to do this for some minutes. Failing, the next move is to sulk in the deepest nearby waters. Do not hurry the game, just a steady strain will start the show all over again. Presently you will feel the relaxing pull, a sure sign of waning powers, and your fish comes to the surface but

a few feet from the boat and lies inert at the surface. Gently you draw the quarry toward you in full faith that he is ready for the boat, when alas! just as you reach for him with the landing net like a flash he is gone and unless you have been more than ordinarily alert a section of your line goes with him or a smashed tip results before you can relieve the reel of the tension of your thumb. The supposition, however, is that your faculties are awake and fully understand the tricks of the desired quarry. When again at the bottom the fish will doubtless go through all the former antics and again come to the surface always "playing possum," only to awake to life and renew the struggle when convenient.

By following the instructions given if the fish return to our waters in anything like their past abundance there is joy in store for the angler of the future and when once a captive there are but few more delicious morsels of marine life to grace the table of the epicure.

CHAPTER XIII

THE MENHADEN AS A BAIT FISH

THE menhaden, or, as it is commonly known, "mossbunker," is one of the most valuable of our coast fishes.

While it is not generally used as a food fish, still when properly prepared it is palatable, particularly when taken in the autumn months, as it is at that time at its best; and when taken from the cooling waters off the New England coast, it is fat and generally free from the threadlike worms often found near the head when the waters are warm.

Millions of dollars' worth of oil is annually extracted from these fish which swarm along the coast of the Atlantic states, while the scrap from the presses is converted into a highly valuable fertilizer for farm use.

Even this, significant as it is in value, is but a moiety of the real value of the fish when considered in the light of food for other fishes. Created ostensibly to be eaten, it is the prey of almost every variety of carnivorous fish larger than itself, and but for its

wonderful fecundity, when we consider its persistent pursuit by man as well as the hordes of ocean fishes and animals, it must have long since become extinct, one writer having the temerity to observe that when bluefish and bonito are served on our tables we are but eating menhaden in another form.

To witness a school of large bluefish strike among the helpless menhaden when the latter are huddled closely together is a sight never to be forgotten and can call forth but one emotion from the beholder and that is deep pity for the hapless victims as they are chopped and torn to bits by those merciless wolves of the sea.

Among the offshore bluefish fleets, the menhaden alone is used for bait. Grinders are set up in their boats and the fish are reduced to pulp which is scattered broadcast on the ocean until what is termed a "slick" is set up. Then a favoring wind or ocean current carries it away from the boats, to be scented by the bluefish who will follow it rapidly to its source which, being the boat, gives the fishermen every element for success, as the large pieces on the hook are at once taken with avidity.

To the sportsman casting from the beach this bait is no less valuable, as many times it will secure him a prize when no other bait will avail. It is rare when bluefish are feeding inshore that this bait is used in vain and it should always be a part of the angler's

supplies on the beach from August first until the close of the season. As a rule they may be procured from the pound boats as they land on the beach, at a very moderate cost; or they can at all times be had at the fish freezing plants, but the latter product is not as desirable for bait because they are less firm after being thawed out than those that are taken from the water.

There is possibly no better bait for that sturdy, hard battling warrior of the sea, the channel bass. While as a rule he takes this bait with a certain degree of caution, as though a trifle suspicious of a cut bait, still, he takes it. The writer was in at the killing of more than a dozen of those magnificent fish during a single morning tide, and, although other baits were freely offered, not a single fish was struck except on menhaden.

The objection raised by some anglers that this bait is soft and somewhat difficult to keep on the hook is really not a serious one. Like all subjects there are various angles of approach and dispensation which, when boiled down, spell the "right and wrong" of it. Many fishermen, when preparing the menhaden for bait, run the knife along the backbone the entire length of the fish, thus cutting a long slab of meat from the side which, when worked on the hook, presents a wide surface to the action of the waters, and, having but little bone fiber for the hook to rest against,

if there is a perceptible current it cannot be kept on the hook for any considerable time.

The method which experience has proven best is to first cut the head and tail from the body; then run the knife through the belly and remove the entrails; then, having lightly scaled the fish, cut cross sections of about one and a half inches in width, cutting completely through the fish; then split each section along the backbone and there will be two fine baits to each section, amply large to entice any fish, and if neatly done with a sharp knife each fish will, if of good size, make from eight to ten good baits.

In baiting, the hook should first be run through the thin or belly part from the skin side, then down the length of the strip to the thicker end, then twisted sharply, and again passed through the meat from the skin side. This will effect a twist of the bait around the hook and with the bones left in the cross sections as described the bait will stay on the hook far better than when cut lengthwise, and will be found quite satisfactory.

Along the New England coast the menhaden is a favorite bait for the large striped bass of that region. The fishermen, luring them to the rocky ledges by means of finely chopped or ground bait much the same as the offshore fishermen do for bluefish, then casting their baited hooks in the "slick," frequently capture fish of the largest size.

While the above process is not in vogue south of Sandy Hook, still, many fine bass have been taken on menhaden bait along the New Jersey coast.

When the crisp invigorating mornings and evenings of October are with us many wise ones use this bait to good advantage, fishing the deep channels of our larger bays where they pass around points of land, and with lines but lightly leaded permit a liberal portion of menhaden to float away on the current when the large yellow-finned weakfish, at their best at this time of the year, take this bait freely and are a quarry worthy of any angler's rod. Not only are the weakfish taken in this manner but quite frequently the striped bass trading in the inland waters gives the angler a pleasant surprise by coming to his bait.

As above stated, the angler will do well, when at all possible, to have a supply of this well tested bait with him whenever he is on the beach, as he will many times have success when all other baits fail.

CHAPTER XIV

ANGLING FOR THE STRIPED BASS

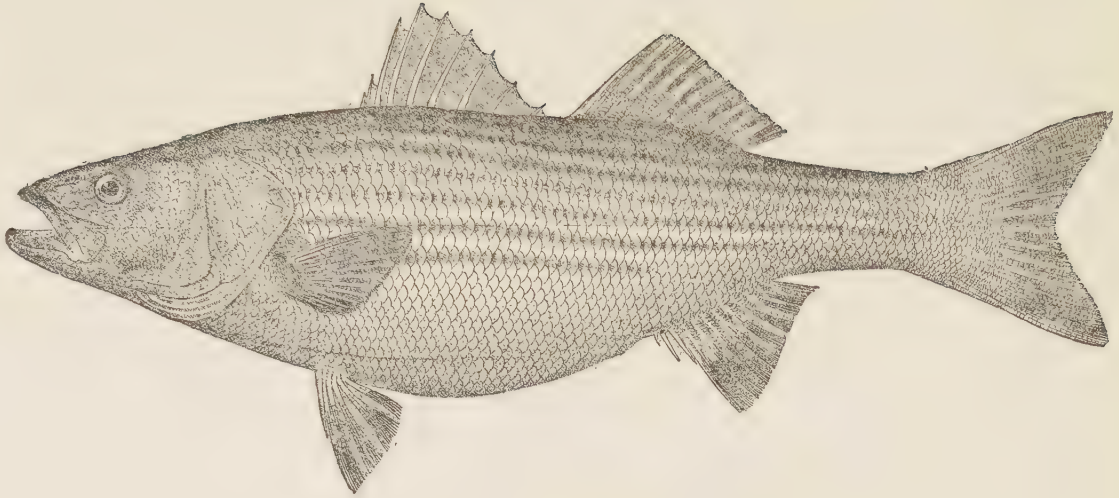
TO the striped bass must be given, if to any of our coastal fishes, the title of gentleman among his tribe. Pæans of praise have been sung to the lordly salmon of the cascade and mountain stream, and to *fontinalis* libraries of books have been devoted to illustrate the glories of his quest and conquest; and it may justly be stated that nothing has been said of him that cannot find warrant for the effort.

While the bass is usually regarded as a coast and estuary fish exclusively, the truth of the matter is far different, as careful research has fully demonstrated. That the bass ascends our rivers to great distances is now a fully established fact, while strong assertions to the contrary were prevalent not so many years since, from the pens of men who should have been more careful of positive statements. Both personal experience and close inquiry have so fully established the fact of their wanderings to fresh waters that it will no longer admit of question, and that many of the mature fish pass many months of the year in water entirely fresh is amply proven.

Whether or not this fish really hibernates during any period of the year is still a matter for argument as well as research. That they do congregate in large schools and are frequently taken in nets under the ice is unquestionable. This usually occurs where mossy bottoms are found and would lead to the conclusion that hibernation was taking place among them. Still, at the same time, individuals may be taken on the troll in water near by, thus disputing the above theory of hibernation. And it is well known that the fully mature fish are rarely or never found under such conditions, but are of course netted in the open waters during the greater part of the year.

As a food fish the striped bass ranks with the best on our continent and, however served, is always a welcome dish to all, whether in the banquet hall or on the table of the humble toiler of the sea.

Many curious legends are still extant, handed down from the days of long ago, telling of the great abundance of this fish, and of enormous catches made at different times in very crude ways. Captain John Smith, of Jamestown fame, is credited with many observations on their great abundance during his time, and in one prominent place a tablet at one time was set up extolling the merits of the fish and telling of the rare sight which he (Smith) had seen as to their great numbers in the James River. He described them as so rich in flavor that they reminded one of the "Mary bones,"



THE STRIPED BASS OR ROCKFISH

Roccus Lineatus

meaning marrow bones of beef, and as being so abundant that at low tide one might walk dry shod across the river on their backs. Some one of a facetious turn of mind chiseled at the bottom of the tablet the rather euphonious epigram, "John Smith is a liar." How much of truth was embodied in the whole story the author has as yet not determined.

As with all characters of prominence there is one serious stigma attached to the name of the subject of this sketch; he is a prodigious spawn eater and will follow schools of herrings and shad to their beds and there deplete their well meant endeavors. But we cannot ostracize him on that count and will be compelled to gloss over as best we may his faults.

The fact remains that he is eagerly sought for by a host of anglers for the excellent sport he lends to his capturing.

The coast range of the striped bass is not so great as many are inclined to believe. It apparently never reaches north of the gulf of the St. Lawrence, and it is never abundant below the mouth of the St. John's River in Florida. While scattering individuals have been met with below that point, still they are rare. Its real range is between Massachusetts Bay and the Chesapeake, where it is very plentiful at all seasons of the year, and the streams leading into it are at times an angler's paradise. And here again we meet the same conditions as are mentioned with many of our important fishes, the

name is most confusing. It is known in different localities, and some not far removed from each other, by the name of rockfish, green head, striped bass, and squid hound. The latter name being applied only to the large ocean ranging fish.

And here it may be well to observe that this fish is not a bass at all. It does not belong to the family of that order, but to the perch, and is so classified by all authorities. However, his relations are of but small moment to either the angler or epicure, and like the scent of the rose he is as welcome under one name as under any other.

The bass is a most voracious as well as indiscriminate feeder, taking at times almost any bait offered, such as minnows, shedder crabs, menhaden, clams and bloodworms, as well as the well-known squid or inkfish which at times it seems to prefer to all others. Early in the spring it seems to care for nothing but the bloodworm and seems to be on the search for it at all times. Were the same conditions of capture bestowed upon the bass as upon the salmon or mountain trout as regards weight of tackle, it is much to be questioned whether either of the latter two would develop greater fighting abilities. The conditions under which the bass is usually taken precludes the use of the very light rod and fine line. Ordinarily the contest is in swirling tideways or in the pounding surf, which calls for the bait being presented at the bottom and held there by the con-

sequently heavy sinker. This makes a rod of considerable weight necessary which is a barrier to sprightly acrobatics on the part of the quarry. That the bass will occasionally rise to the fly seems to be accepted but under conditions which must be observed with fidelity, in the early morning hours before sunrise, or at sunset when quiet is on the waters and no wind moving. Those who have tried have been occasionally successful. There is no doubt that, at the same time, had a light rod with a spinner been in play the same fish would have been taken together with several of his congeners. Not that the use of the fly is to be decried, but with this fish the spinner and worm is decidedly more deadly, or to use a more sportsmanlike phrase, more certain of success.

The proper method for river or bay fishing is a good light boat, with trolling equipment as follows: a light rod with sufficient weight to strike against or take up the slack against the momentum given by the motion of the boat, a nine-thread line and a good, active multiplying reel; a gut leader of from two to three feet in length should be used and at least two-ply, which should be of a mist color and of good quality; attached to one eye of a box swivel; to the other end or eye the line should be fastened. The use of the swivel should never be neglected as the entire trolling outfit frequently revolves and without the swivel attachment the line soon becomes unlaid or unstranded and consequently ruined.

There is on the market a keel sinker, made so that below the part to be fastened to the line a flat depth of lead extends. This in trolling is invaluable as it not only prevents the line from revolving but carries the bait down rapidly, and its edge formation offers but little resistance to the water. The hook should be a 4-0 or 5-0 O'Shaughnessy. Why it is that this particular type of hook is so deadly to the bass is not fully understood. However, your experienced bass fisherman will accept no other type. For bait there is positively nothing which compares with the whiteworm or bloodworm, as it is usually termed. Two or three good sized worms should be strung on the hook with much of their lengths left hanging. Between the leader and hook, however, a small, free acting spinner should be attached. This is positively the most killing lure known and will take fish if they are to be obtained. The boat should be moved just fast enough to keep the bait free from the bottom, and as much of the time as possible against the tide. Where rocks are known to exist they should be worked over several times, until success crowns the effort or assurance is had that the fish are not there. Grassy points should also be carefully worked out keeping the bait close in, no matter if the water is quite shallow, as the bass frequently lurks in most unexpected places. So many times, when arms are aching from continuous rowing and patience is about played out, whir-r-r-r—the rapidly vibrating clock, that "alarm

clock" to the fisherman, gives notice that a fish is hung and at once the fatigue is forgotten and nerves are atingle with excitement. If you are covering fairly deep water the first rush is sounding to the bottom; then off fifty, eighty, perhaps a hundred feet as swift as the flight of an arrow; then comes a splash at the surface. You can scarcely realize that it is your fish, so swiftly have the movements been made, and in that move, if the hook is not well set, your relationship ends for all time, as the splash you heard was not accident but design.

Could you have been closer you would have seen the thrashing of the head to throw the hook from the jaw; but, being unable to do so, again he sounds and runs. If the hand of experience is holding the rod full play is given the captive until, exhausted, but not conquered in spirit, he is slowly led to the gaff or landing net, without which no fisherman should ever hold argument with a game fish from a boat.

While the bass are not nearly as abundant as formerly, still it may be said with assurance that they are holding up as well against the indiscriminate slaughter as any other species. This may be accounted for by the fact that he is at all times an inshore ranger and is not affected by the "pound nets"; besides legislation has been passed in all the coast states looking to the conservation of the species. Another great safeguard to the bass is the fact that they spawn in bays and rivers and never in the open ocean, so the small fry remain

in inland waters until quite able to care for themselves, and it is no stretch of the imagination to contend or believe that much of their life is spent at or near their place of birth. Like all other species the scarcity or abundance of this fish depends largely on the food supply at a given point. The bass is at all times fastidious in his manner of feeding. What will be taken greedily at one time will not tempt him at another, so it is always well when surf fishing to have two or more kinds of bait in readiness. The baits usually relied on are bloodworms, shedder crabs, squid or inkfish, and skimmer clams. When none of these secure results it is quite safe to assume that bass are not present in the water or are absolutely not feeding. They will, however, take the metal squid during the autumn months when the surf mullet is about, but, strange to say, while they persistently pursue the latter fish they rarely will strike one when on the hook.

If we claim that trout and salmon fishermen are immaculate in their ideas of proper outfitting, the same must be applied to the bass fishing enthusiast.

It is June, the month of roses and bass, the hour three A. M., when we see our properly equipped angler step from his home and direct his steps toward the beach. The morning stars are yet shining. He is a man of experience and care. His canvas fishing suit and well fitting rubber boots reaching to the thighs witness that fact. A leather rest for his rod butt is around his

waist and a well oiled, carefully kept 2-0 or maybe 3-0 reel is on a perfectly balanced greenheart or split bamboo surf rod, agate mounted throughout. That he is a man of experience may be known by the way his eye ranges up and down the beach. The deep water slues do not hold his attention. His mind is on the adjacent flat where the water of the now rising tide comes tumbling over to meet the deep waters in the basin, for well he knows that if a bass is to be taken it is at the point where the troubled waters are washing out the crustacea of the sea.

That he is methodical may be known from the manner in which he prepares. First, six or eight feet of line is stripped from the reel and carefully tested as to strength, as the ends of lines chafe rapidly in surf fishing. Satisfied as to its condition the four-ply gut leader, with its brass swivel attached, is well secured to the line. Next, the 7-0 O'Shaughnessy hook loop, snelled with four-ply selected gut, is bent on and the point of the hook is tested to determine its condition. It is apparently not to his liking and a small piece of very fine emery cloth is produced from somewhere in his kit and a few smart rubs puts the hook to a needle point. You will observe that, tied to one eye of the swivel, is a short piece of line with an open loop. If a novice you will ask why. That short piece of line, my friend, is really one of the important parts of the whole outfit. To the loop is fastened the four-ounce casting

sinker, which is pyramid in shape and being so shaped holds to the sandy bottom better than any other type yet devised. And as to the importance of the short line you will note that it is tied to the eye of the swivel opposite to the one holding line and leader; this arrangement permits the leader to remain perfectly free of the sinker and the slightest touch on the bait can be felt before the sinker is disturbed.

All being in readiness the angler, before baiting his hook, steps down and makes a short cast, thoroughly wetting down his line, and no matter what bait he may have selected for his trial it is as carefully selected as the other details have been carried out. If bloodworms, two or three are on the hook, with ends hanging free. And now comes a most important part of the program—the cast. The rod is never circled, but the tip is dropped down in front on a line with the eye, then brought back over the right shoulder, then with lightninglike movement the lead is shot out one hundred and fifty, possibly two hundred feet, depositing the baited hook just where the green water is tumbling into the basin.

Years of experience have taught our angler patience and well he knows that this morning may pass as well as many others before the coveted prize is secured, so lighting his pipe he seats himself on his fishing basket and prepares to await events. The tide is propitious, however, and we note how carefully the line is kept

just taut, not enough to move the sinker, but just so nicely balanced that the least disturbance of the bait will be telegraphed to the index finger over which the line is drawn.

The first rays of the morning sun are dancing on the waves when our friend springs to his feet. He does not strike, but stands in an attitude of tense expectancy. A quick backward step is taken and the rod, bending like a drawn bow, tells us that the strike has been made. Away out yonder a beautiful creature vaults into the air and dropping back sends a thousand watery diamonds high into the air. The singing reel assures us that the steel barb is locked in the fish's mouth and it is now a battle of wits between man and quarry. But the man is ripe with experience. At the first rush the click has been set on his reel so that in the event of a misstep there will be no overrunning of the line on the spool of the reel. At first the startled fish battles in the shallow water. Away he goes, two, perhaps three hundred feet, at the first rush, his beautiful contour showing plainly as he cuts through the waves. We note that his first rush is to the north; now he doubles and comes back with arrowlike swiftness and we hold our breath as the line slackens, but our friend attends to that; he steps back quickly and, reeling in fast, soon brings the line taut. Again the tactics are gone through, not so far this time, however. Finding no relief from his bondage the fish now seeks deep water

and sulks, but the gentle springing of the rod tells us he is being prodded into action. We notice now he is swimming in circles, a sure sign of waning powers in a fish. The end is not yet, however; again, and yet again, he is worked to the beach and as often goes to deep water. Once more the sulking tactics are brought into play, only to be broken up by the master hand at the rod, until the fast tiring fish is worked into the trough of the sea near the beach. Now the whole beautiful struggling creature is in full view, swimming parallel with the beach, his powerful tail beating the water and every fin set abrace against the action of the threadlike line from which he cannot get release.

The fire in his eye is plainly visible as each succeeding wave lifts him gradually toward the sands. Steady now, my man; your fateful moment is at hand. You have a prize fit for ransom within your grasp. A moment's carelessness now and all may be lost to you. But he knows a thing or two of the game; the line will not be slackened. As the waves throw the fish upon the sands he steps slowly backward keeping the line taut until the prize is won. And such a prize—the striped monarch of the Atlantic coast, about forty pounds of him—every inch is beauty and every ounce meant battle.

CHAPTER XV

THE CHANNEL BASS

IN order to get before the mind of the reader as lucidly as possible the many interesting habits of this fish, it becomes necessary to quote liberally from the writings of several students and close observers of fish life, as well as to make use of personal data covering many years of research.

Primarily, the term "red drum" which has so long designated this superb game fish should be forever discarded in a qualifying sense, and the more appropriate term "channel bass" be universally adopted.

Many years since, that eminent authority, G. Brown Goode, wrote that this fish was badly in need of, and should have, a strictly characteristic name of its own; and suggested that the name which is now coming into general use, north and south alike, be universally adopted.

In gathering data for local use newspaper scribes are prone to take as bona fide the statements as given out by net fishermen relating to the movements and habits of certain varieties of fishes, when, as a matter of fact, the only knowledge they may possess of the matter is

what "Uncle Jeb" or "Silas" So-and-So told them many years before, having never given an hour's endeavor to the unraveling of any of a thousand perplexing questions which annually arise pertaining to fish and their life histories.

I would not infer that these same men are dishonest in the main; they tell the story as they see it superficially, or as it is handed down in legendary manner from one generation to another. Occasionally a real humorist appears on the scene, and the information the scribe receives and passes on to his journal for publication is startling.

Several years since, one of the best and most persistent bass fishermen who ever visited our coast was annoyed and badgered by a representative of one of New York's largest dailies for a complete story of his method and success in taking that much prized fish. He accordingly took the guileless reporter into his confidence and wove and spun a tale truly "Munchausen" as to how, in a frail canoe, he pursued and captured the mightiest of these fish in inland lakes where no other mortal thought of their being, and with lures entirely of his own conception, meanwhile pledging the writer to the most profound secrecy as to the location of these wondrous lakes and the prizes they contained.

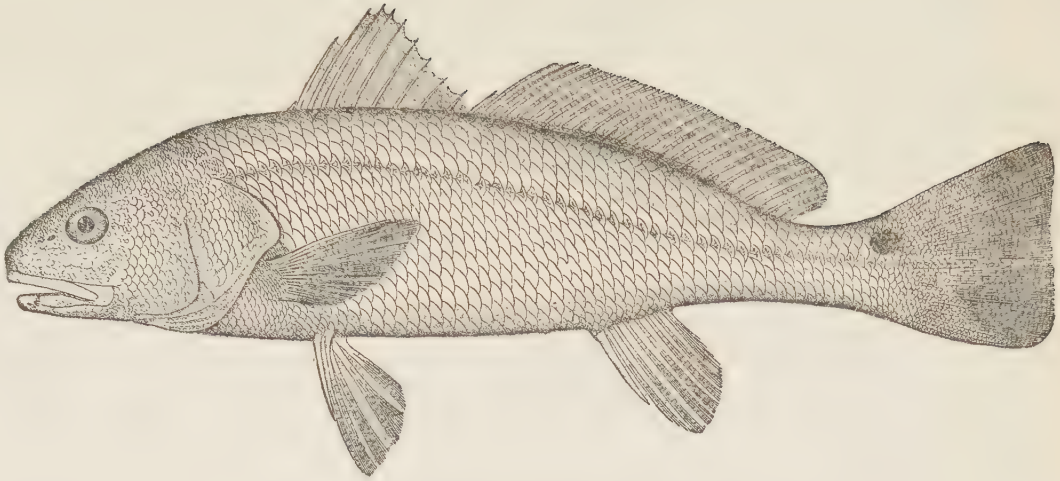
The story was actually printed as given and was copied in many papers of the time until the whole subject became a ribald joke among the knowing ones. It

is perhaps needless to state that the reporter wrote no more fish stories.

The above digression is by way of emphasis in detailing the proneness of the public to imbibe the wildest stories regarding fish life, and frequently the more improbable the tale, the greater the readiness for its undisputed acceptance.

The nomenclature of our salt water fishes is in many cases most bewildering. Perhaps there are no other subjects to which, within a limited latitude, so many names are given and accepted for individuals. The specific term "red drum" has been applied to this fish for so long a time that it is doubtful if it will ever be changed by the net and other market fishermen of the states of its more northern range, while as we proceed southward the names "red bass," "red fish," "reef bass," "branded drum," "beardless drum," etc., are in vogue much to the perplexity of people of different localities. But I have found the name "channel bass" to be very acceptable to the anglers of many of the southern coast states, and also the name is in general favor among the market men who formerly termed them "red fish," and let it go at that.

That this fish belongs to the family of "drums" must be conceded, as do also the weakfish, kingfish, croakers and many familiar varieties. That it differs, however, from the real red drum of the Atlantic coast in many important details is scarcely to be denied. The contour



THE RED FISH OR CHANNEL BASS
Sciœna Ocellata

of body is essentially different. There is an entire absence of chin barbels with the channel bass, while with the red drum it is a very distinguishing feature. The ever present spot or spots on or near the tail is another characteristic, as well as the general build which indicates vigor and speed in the water as against the rotund and sluggish fish which bears the same name. The feeding habits are different in many particulars. The channel bass, according to southern observers, feed at times most voraciously on smaller fish. They will also at times take the trolling bluefish squid. A glance at the two subjects when mounted side by side would be conclusive without more argument on the matter.

That the habits of the channel bass have changed in some degree must be evident if we give close attention to the writers of some thirty years ago; Dr. Goode, in his admirable works on our coast fishes, says the channel bass are very abundant along the Florida coast as well as the Carolinas, and even up to the Chesapeake, but north of the latter point he was unable to get a record of any fish taken, which statement seems to be sustained by both Stearns and Jordan, who, in their day, were eminent in research work on coast fishes, and much of our knowledge to-day of the ocean tribes is the result of their painstaking work.

Be the latter statement as it may regarding their time, certain it is that in latter years their northern migration has been greatly extended. The same fish

are anuually quite plentiful as far north as Barnegat Inlet where their movements in any considerable numbers seem to terminate, although they have been taken as far along as Elberon, N. J. One autumn recently some twenty-five or more were taken ranging in weight from 15 to 30 pounds. During its youth this fish would never be recognized by the inexperienced. It is of pure silvery whiteness without a semblance of the bronze coloring of the mature subject, and but for the ever present spot on the tail might well be taken for a different species of marine life. It is one of the most important food fishes of the south, and ranges all along the Gulf Coast and through the Caribbean, and is well known at Panama. It is, however, as an angler's prize that it reaches its zenith. Not more than twenty years ago its merits as a marine pugilist were but little known. When taken it was usually on a cumbrous hand-line of the sash-cord variety. The poor captive was unceremoniously dragged to beach or boat by sheer force, and promptly rapped over the head with some convenient bludgeon, and the carcass set adrift on the restless tide, a mute martyr to man's stupidity. But the eternal evolution of things has changed all this. It is no longer regarded as a cumbersome thing to be avoided by the fisherman or the dealer in his stall in the northern markets. Instead the most immaculate tackle is employed, while hotel bills and railroad fares are disregarded when the quest is promising.

From early June until well into October, if the weather be propitious, thousands of surf anglers visit the New Jersey coast, and from Cape May to Barnegat Inlet withstand the privations incident to many points, as well as the merciless onslaughts of mosquitos, which, to paraphrase a line in Gray's Elegy:

"Teach the rustic moralist to die."

When channel bass are ripe the sting of the mosquito, as well as the sting of the high cost of transportation and provender, is tossed aside as unworthy of consideration, and all points considered favorable for the taking of the bronze beauties are occupied at all hours, both day and night. Cape May, Sea Isle City, Corson's Inlet, Brigantine Shoals, New Inlet, Surf City, Ships Bottom, Harvey's Cedars and Barnegat City, as well as what is known as North Point of Beach, directly across the inlet from Barnegat City, are all noted places for the taking of this marine nomad, and at any of the places named it is not a question of this species or nothing, for generally at the proper stage of the tide bluefish, weakfish, croakers and other varieties may confidently be looked for to fill in the interim of waits.

In channel bass fishing, tides do not appear to play as important a part as with many varieties of fish. High water, mid-tides and again at lowest ebb they frequently let their presence be known, and wise is the angler who persistently follows the sport irrespective of tidal con-

ditions. If choice is to be made in relation to tides it should favor the ebb and when the water is disturbed and choppy.

The tackle should be the regulation surf outfit, the same in all particulars as is used for striped bass, the reel 2-0 in size of the best quality, which will easily hold 600 feet of 12 or 15 thread regular line. Some prefer a 3-0 reel holding 900 feet of 12 thread line. To the latter there is no objection; it works well, but 600 feet of line will land the fish if well handled, and the original outfit costs much less. The rod should be hand made, and of either greenheart or split bamboo, with a twenty-four or twenty-six inch butt, with a single-piece tip, agate mounted throughout.

A rod should always be balanced as to length by the user, as a rod which is unduly long cannot, without infinite practice, be made a real companion in casting; while a rod too short is always a snare, and cannot give the resiliency necessary to good casting. A leather rod-belt worn around the waist, with a pocket into which to rest the butt, is essential and should never be omitted from the equipment, as it takes the weight from the arms while at rest, and when a fish is hooked and being fought it gives a leverage to be obtained in no other manner. The hook should be hand forged O'Shaughnessy of the highest quality, as this fish has wondrous crushing power in its jaws and can easily snap a badly tempered hook, so the best is the cheapest and surest;

7-0 or 8-0 is the proper size, and should be loop-snelled with the best procurable gut and four stranded. There is quite a tendency in later years to use a section of piano wire and the ringed O'Shaughnessy hook prevents the stout molars of the fish from grinding off the gut. This, ordinarily, is quite unnecessary, as it is rare, indeed, that the fish cuts away a properly snelled hook, besides the flexible nature of the gut gives greater freedom of action to the bait while it is going through the water.

The channel bass is a generous feeder and can be taken with a variety of baits. Shedder crabs are always good, while at times menhaden bait holds a special charm. Squid, when properly cleaned, is a very reliable and economical bait, and is much used, as well as the large sea clams. No matter what bait may be used, the portion should be generous in size and frequently examined to see that sea spiders and other pests have not destroyed its appearance. In using pieces of menhaden it is always well to wrap linen thread three or four times around hook and bait, drawing the thread fairly tight; this aids in keeping the bait on the hook, as the flesh of the menhaden is very soft and oily. When the spot is chosen for the endeavor, which should be in a deep cut or basin along the beach, and the bait placed just where the water is leaping and tumbling after the break over the bar, for at such a place the quarry is most apt to be met with, then patience, that prime necessity of

the surf fisherman, must be exercised. It may be minutes, hours or even days before final reward comes, but when it does there is no mistaking the token. Rarely does the channel bass take the bait with a snap and a rush like the striped bass or bluefish. Like a coquette bandying with hearts this prize fish is coy of baits, and his first approach is apparently an investigation as to whether it is entirely to his liking. Once the touch travels down the line to the rod-hand it is never mistaken for another signal. Gently the bait is picked up, moved a few inches, then allowed to lie quiet for a few seconds as if the fish was determining or considering the advisability of continuing the investigation; then a drawing motion is felt along the line followed frequently by a sort of pecking at the desirable morsel. The man of experience knows that to strike at this period would be futile and nervously awaits further action. The fish, apparently satisfied that all is well, starts to swim away with the bait, then the rod is brought sharply up and the hook firmly set in the tough leathery jaw.

This is the moment of supreme anxiety, as well as joy, to the man with the rod. The first thought is: "How well is he hooked?" The next: "Have I line enough?" The bronze torpedo goes flashing through the waves and the humming reel pays off line with lightninglike speed. Away goes the alarmed fish; two, three, at last five hundred feet of the line are out, and

the bronze back gleaming through the smother of green water like burnished copper is still going; but the man at the rod knows that with each foot of line now taken the weight is intensified on the fish and so bides the time when there will come a perfect balance away out there between the powers of the fish and the spring of the rod. At last he has the satisfaction of seeing his game turn abruptly to right or left and begin swimming parallel with the beach. There may be no more than perhaps fifty feet of line left on the reel but the chances of taking more out now are small, as the first rush is the most vicious he will make, besides he is at a perfect balance with the weight of dragging line and backbone of the springy rod. Six hundred feet is not so great a distance when viewed from certain angles, but the man who had his first experience with that amount of line going out from under his burning thumb at the impulse of a threshing, gliding channel bass, may well be excused for estimating the distance at something over a mile. The battle may continue under different conditions for upwards of an hour, the fish in turn diving and sulking at the bottom, then swimming at the surface, threshing at the restraining line with his tail and resorting to all expedients known to fish cunning to extricate the hook from its hold in the jaw. Many times during the fight the game will permit itself to be reeled quite near the shore when the pugnacious spirit will assert its rank and again go plunging to the first

distance taken. When tired nature can no longer maintain the stress of the all-compelling rod, the quarry is beached at last. The human conqueror, with mingled emotions, may well gloat over as beautiful and worthy a captive as will ever fall to the efforts of his rod and reel.

CHAPTER XVI

THE KINGFISH—A TRULY ROYAL FIGHTER

IT has been well said that to catch fish is not all of fishing, and it can be said with equal fitness that to catch large fish is not all of catching fish. The subject of this sketch amplifies the latter quotation to a marked degree. As your trout fisherman feels amply rewarded with his half pound beauty so does the man who goes forth in quest of the kingfish.

There is no specimen or variety of salt water fish which is more eagerly sought, weight considered, than the kingfish. Beautiful in form and color, a free, bold biter on the hook, and swift as thought when hooked, he affords a delight to the wielder of the rod who is using proper tackle for the subject and when later presented on the table is a tidbit over which the most pronounced epicure well may gloat.

It does seem strange that a fish which has obtained such just popularity throughout so large a range of coast line should have such a confusion of names, and of a surety he is entitled to better usage. His qualities, viewed from any point, are of such an attractive character that it would seem a universal name would be easy to establish.

A single state furnishes three distinct names for this popular fish and as a whole he is caught and bought under more titles than is consistent. In Connecticut he is known by the name of "tomcod" while he bears no resemblance to the fish which is properly so called; "kingfish" in New York and the northern sections of New Jersey; "barb" in the vicinity of Barnegat, and "sea mink," "black mullet" and "whiting" as we gather the names from more southern waters. Though differently classified by icthyologists, the resemblance of the surf whiting of southern waters and the kingfish is most remarkable, and save in color it is impossible, at least for the average man, to distinguish the difference. One fact is noticeable to the thoughtful, the whiting of the south averages less in weight than his northern compeer.

The kingfish has a range extending along the Massachusetts coast down to the Carolinas, and may be met with in all the tidal streams between the above points, where good channel ways are maintained. It goes much in schools, and where one is met with, others may in confidence be looked for. Along the entire New Jersey coast it is a great favorite with the angler and in this class of fishing modern methods leave but little to be desired. The reels are superb and rods and lines have reached the degree of perfection. We are considering now the high grade goods, not the "bargain counter" variety where the sixty-nine cent reel and dollar-nine-

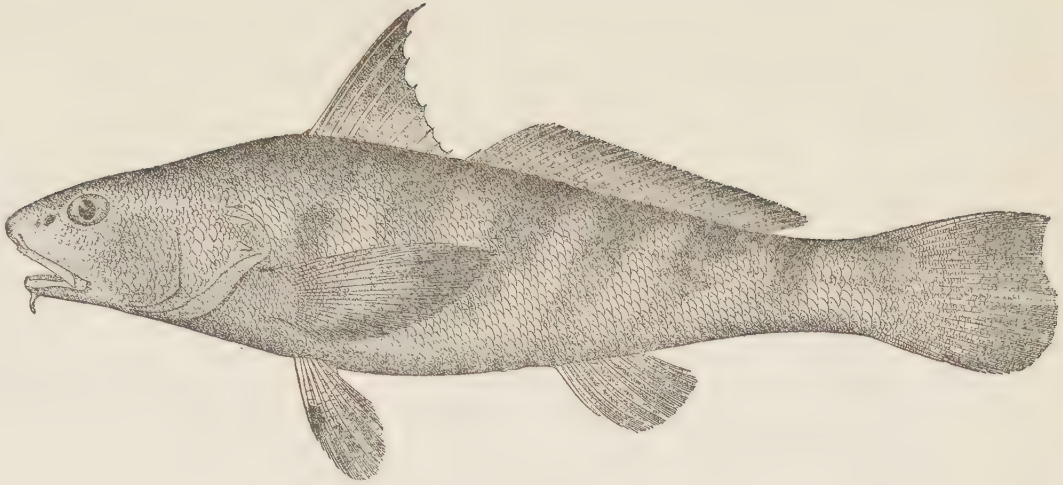
teen rod are palmed off by the clerk of incompetence as "just the thing." Such merchandise may have its uses but it is not in this class of fishing.

Many authorities assert that but little is known of its spawning habits, and that its habits in this respect are obscure. Very close observation of more than a quarter century has taught me that it reaches the New Jersey coast about May 20th, the gravid fish then being heavy with spawn, and most certainly performs its reproductive functions in the waters of our rivers and bays, as I have taken multitudes of the fingerling fish in the autumn months when hauling bait nets in such waters, which fry were surely the progeny of the current year.

The kingfish is most cleanly in its habits and it is undoubtedly in unpolluted waters only that it makes its spawning habitat, as it is only in such streams which are not affected by sewage or other deleterious substances where I have met with the young fish.

A most curious feature of common knowledge is that at least eight out of ten fish taken on the hook in the early season are females, which is a peculiarity not met in any other variety of fish with which I am familiar. Whether the females are so greatly in excess in point of numbers, or whether their gravid condition gives them a stronger desire for food must be left to conjecture.

In the surf the kingfish is known as an inshore feeder,



THE KINGFISH OR SEA MINK
Menticirrus Nebulosus

nosing along the points of beach and bars in quest of its food which consists of shrimps, the numberless varieties of snails and the smaller crustacea. Any of these may be used successfully as bait, but the best two are shedder crabs and bloodworms, or whiteworms, as they are sometimes called.

The kingfish bites well either day or night and is taken during all conditions of the tide; but if the best conditions are sought, and your true surf fisherman is ordinarily not content with less than the best, then the advice is, be on hand just as the day is breaking and when the tide is flood. Select a point where the bar is within easy casting distance, which can be easily told by the long line of white foam and the churned condition of the water. To get the most enjoyment from the sport, tackle must be as light as is at all consistent, the rod just stiff enough to put the bait out. Under ordinary conditions of the sea one and one-half ounces of lead are sufficient, a nine thread line and a 1-0 multiplying reel of high quality; this will be found to be the ideal equipment. A two-ply or, at most, a three-ply leader not more than a foot in length should be used; a brass box swivel is essential, into which the line and leader should be secured, using the same eye for both. The remaining eye is to be used for fastening the lead line, which should not be more than six inches in length. Thus arranged, the line and leader are in direct communication and the least touch on the hook

can be instantly felt. And now as to the hook: on this subject hours of earnest debate among anglers and in the fishing clubs have been held. I have tried every make with which I am familiar, and various sizes, and unhesitatingly pronounce the high grade 2-0 Sproat as superior to all others. Being short from point to bend it is readily taken into the peculiarly formed mouth of the kingfish and holds well.

Thus equipped, and the bait well out to the desired spot, the line must be held taut and the fisherman keenly alert, for the readiness with which a kingfish can steal a bait and make its getaway is really most astonishing, accustomed as they are to wrenching loose their food from its fastenings. The strike is most peculiar and once felt is never forgotten, nor mistaken for others, being a nervous twitch, sharp and rapid. As he rarely hooks himself the fisherman must at the instant of touch strike firmly but not too hard, and if the quarry be hooked a battle such as but few fish of from one to two and one-half pounds are capable of is in order. As they have a peculiar leatherlike mouth, a hook once set holds well and is rarely shaken out. If the specimen be a large one the determined resistance set up at the water's edge is truly remarkable. Striking a course parallel with the beach and with head well down every atom of momentum they are capable of with fin and tail is exerted until the angler may well be convinced that much larger prey is engaged. If the

quest be earnestly and intelligently pursued the pastime is of high order and the gastronomic reward great. As the tide increases the cast should be shortened for they move inshore with the increased depth of water until at high tide they feed directly at what is termed the shingle, or sand of the beach. I have taken multitudes of them within ten feet of the sand just back of the breaking swell.

As to river and bay fishing much the same order of things obtains as to time of day and tidal conditions, but the tackle should be lighter. A good black bass rod is now in order, in fact, a bass rig throughout is all that is needed. The hook as described should be used, however, with only lead enough to carry the bait down. Where practicable, fish outside the channel just a little off from the deepest water. This applies particularly to night fishing, as they apparently feed at the edges of the flats during the night hours, and if quiet is maintained in the boat good results are assured.

If an oyster reef can be located, fishing near it is recommended. It is a familiar sight to the oystermen to see a school of kingfish fighting for the worms on the bottom, as the oysters are removed where the water is shallow enough for such observation.

It is perhaps in this method of fishing that the kingfish appears at his best, and since the tackle is so much lighter than that employed in surf fishing the battle is more royal. It is really a great pleasure to take this

fish on light tackle and in a strong tideway, and when boated he is no less a prize. Beautiful in color and contour he must ever rank with the choicest of our American fishes. Commanding a high price in the markets only outrivaled by the Spanish mackerel and pompano, he is esteemed by the epicure as well as the angler.

As environment doubtless plays a most important part in fish coloration, it is a strong question if the southern surf mullet and the kingfish are not one and the same species. I have examined many specimens of the former in southern waters and, save for the light color they have, there is no noticeable difference. The bottoms of the bays and rivers, as is well known, have a marblelike whiteness and this is also true of the surf all along the Florida coast where they are very abundant. One thing also which apparently tends to confirm this theory is that, when first taken from the water, the whiting is a beautiful silvery creature; but when exposed to the atmosphere for a few hours he takes on a dark gray cast, although never showing the bronze bars which run latterly or in some instances diagonally on the body of his northern relative. In the Gulf of Mexico I found them to be most abundant and they were continually sought after by the ubiquitous "small boy" with the crudest of tackle. Along the wharves near Galveston they are so abundant that the bottom seems fairly to be alive with them.

While the two fish have been classified and are held as distinct by those who have been long recognized as authorities on the subject, still it is openly questioned by the observant army of anglers whether or not the only difference lies in latitude and environment. Like so many fish which are natives of southern waters the flesh of the whiting is not so palatable as his northern relative, being much softer. It also lacks that delicious flavor which so characterizes the kingfish, who is a gentleman among his fellows and whose presence is ever welcomed by the angler. As the years go by, if the diminution of our coast line fishes continues, he will become a rare tidbit on the table and a greater prize to him who loves the contemplative man's recreation on the sweeping tideway or at the foot of the murmuring sea.

CHAPTER XVII

ABOUT THE BLUEFISH

PERHAPS no inhabitant of the seas occupies a more anomalous position than does the subject of this sketch. And in treating of him biographically I am well aware that much, both of merit and demerit, in his character will perforce be omitted.

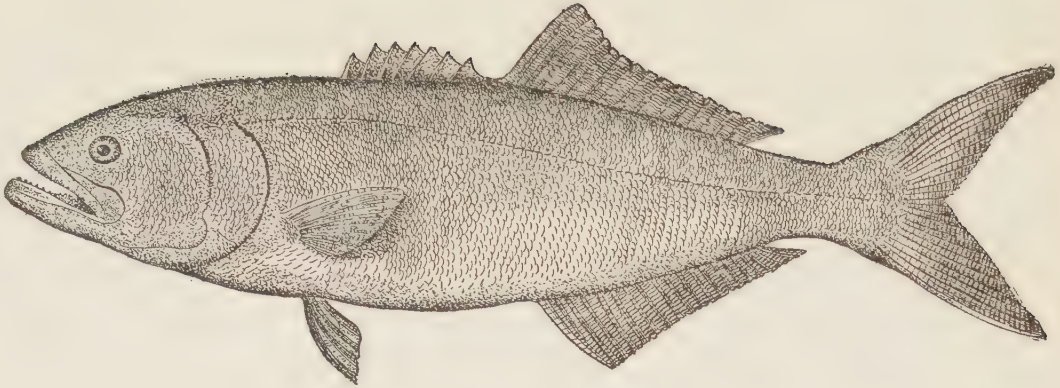
As a thoroughly game fish he is without a superior; always sought for by the angler as a prize worthy of the utmost endeavor, and testing to the limit the endurance of both man and tackle. As if conscious of his wonderful powers in the water he defies mastery as long as he finds sufficient water to get leverage with tail or fin and when that is no longer available will snap like a wounded wolf at the hand which may be carelessly exposed. It has been well said that pound for pound the bluefish is without a peer, in point of excellence to the angler, and it is generally agreed that no fish is superior as a table luxury when fresh from the water.

As if to offset such points of merit as has been noted, his ruthless habits are so pronounced as to have gained for him the sobriquet, "corsair of the seas." No living thing smaller than himself is free from his merciless

onslaughts as will be noted later on, and his depredations are without a parallel in marine life.

The spawning habits of the bluefish are but little understood and are the subject of much discussion; the claim made by some writers that they spawn in the rivers and estuaries of our coasts is untenable, as the larger specimens are rarely seen in inland waters, except for short periods when they dash in pursuing their prey, and ordinarily pass out to sea again within a very short time. That the smaller individuals may do so in the very large open bays can be believed and yet the doubt is strong as the fingerling fish can be seen late in July entering all the tidal streams along the coast from the open sea. This would not be true if the spawn was passed in inland waters; besides, the fry appears simultaneously on the coast from about Massachusetts to the Virginia Capes.

The deduction is that they spawn in the ocean in or near the Gulf Stream where the temperature of the water is suitable for the purpose and at once, on hatching, the fry makes its way to the sheltered waters of all coastal streams, where its proper food may be obtained, as well as escape from its enemies. When first seen, early in the season or about the last of July, they are from 3 to 4 inches in length and are locally known as snappers or snapping mackerel and are usually present in great number until late in September when they pass out to enter on their life of carnage.



THE BLUEFISH
Cheilodipterus Saltatrix

The growth of the bluefish is most phenomenal, and is really one of the marvels of nature; from the fingerlings of July they will reach the length of 8 to 10 inches by the last of September, and are represented by the one to one and one-half pound fish on their return to us the following June; these same fish by October will range in weight from three to four pounds, when they may be called mature fish. This rapid development is only accounted for in one way, and that is by the enormous amount of food they consume; their appetite is apparently never appeased. Continually feeding, always on the rampage for food, their destruction of other spawns is most wonderful. As digestion is very rapid with all marine animals the total amount of fish consumed by the ravenous bluefish, could it be learned, would be almost unthinkable.

They have the well-known habit, when gorged with food, of extracting the desirable quality and then ejecting the remainder, only to again repeat the process. These facts are so well authenticated by scientific observers that they are beyond gainsay. While they consume many varieties of food their favorite, when it can be located, is beyond doubt the menhaden or mossbunker. To witness a school of large bluefish work their havoc among these helpless creatures is a sight never to be forgotten and which will beget pity. When out in boats on the open ocean I have often been among them and watched the awful slaughter; they rush like

wolves among the huddled hordes, ripping and tearing, their jaws snapping like steel traps, and so powerful are their jaws that with one bite they will completely sever the largest menhaden. They have well been termed animated chopping machines and the further appellation of unmitigated butcher is befitting. At times they will attack a school of fish and, as if prearranged, keep striking them only on the outer edges; thus the whole body is soon going in a circle and kept in one well defined space, until the beasts of carnage are gorged to their capacity. Professors Jordan and Baird, as well as others who have been associated with the United States Fish Commission and whose observations are beyond question, have asserted that the bluefish will consume much more than its own weight in food each day. Their enormous consumption of food accounts for their rapidity of growth, and only their great activity enables them to overcome any species inferior to themselves in size. The range of the bluefish is indeed a much disputed question; that they at times are very abundant in the Mediterranean Sea is well known and yet, while they are known to be at times in the Caribbean, they are at no time very abundant in the Gulf of Mexico. At least personal research among fishermen of that locality fails to shed much light on the subject. I have found them at times very plentiful on the Florida coast, but generally of medium size, ranging from two and one-half to four pounds; the larger specimens appar-

ently avoiding that coast, while along the Carolinas the large fish are usually plentiful. Like so many of the eccentricities of fish life this is difficult to understand.

Passing the murderous instincts of the bluefish, there is nothing but admiration for the rest of his character; of vast economic importance as a food fish and a superb attraction to the angler. The markets are mostly supplied by the fleets of boats which pursue them everywhere during their stay with us and their capture is mostly consummated by hook and line. This is a most interesting, as well as novel, procedure. Hundreds of fishing smacks constantly patrol the waters of the eastern states, solely in pursuit of this fish. With them are taken dories which, when the fish are located, put away from the smack, manned by three or four fishermen who grind up the menhaden or mossbunker into a fine pulp and scatter it broadcast on the water; the oily mass soon creates a slick, which attracts the fish around the boats, as they will follow this slick to its source, no matter how great the distance, and when once lured to the boats the real sport or labor begins. Baiting the hook with a liberal portion of "bunker," as it is usually termed by the fishermen, it is allowed to drift out without any sinker, as when the bluefish feeds it is usually at the surface; the barbs of the hooks having been filed off so that they may be easily and quickly removed, as when this class of fishing is em-

ployed "keep 'em a-comin'" is the watchword, giving the fish no chance of unhooking. In addition to this system there is what is known as the beach crews, which put away from the shore each day, when the surf will admit, and cruise along the coast. Their methods are much the same as described in the smack fishery except that they use in addition to the bait the metal squid. Their boats are mostly equipped with powerful motors which enable them to use the trolling line to advantage when the bait system proves ineffectual. This class requires brains as, if the fish are running large, the shock when the fish hooks is something tremendous, and the consequent battle from a swiftly moving boat is something to be reckoned with. To the novice it would mean lacerated hands and consequent loss of fish.

To the sportsman, however, this procedure is in the main not available, and largely not desirable. It is when the schools are trading inshore and within casting distance from the beach that the bluefish appeals in his truly great rôle as a prize to the anglers. During the summer months scattering individuals are taken at different points, but in August and September and sometimes during October when the surf mullet are plentiful along shore they trade in and prey ravenously on them. The rig used in this class of fishing is the same as used for the striped bass except the hook which should be 7-0 ringed Limerick into which a section of piano

wire should be fastened, as a gut snell is instantly severed by their knifelike jaws. A three- or four-inch mullet is placed on the hook by passing the point through the mouth, then out along the side and through the body close to the tail, as the bluefish always when possible strike at the tail of their prey, and this arrangement gives the greatest chance of hooking. When the strike comes it is second to nothing in vigor; and the battle following of the most pronounced type, different from that of any other variety. It is generally conceded that a bluefish of six or eight pounds in weight is much more difficult to beach than a striped bass of three times the same weight. Vaulting into the air the instant the hook is set, the next instant down to the bottom and somersaulting at points between, they never tire or drown out like other varieties, but pursue a course of cunning scarcely believable. Innumerable times I have had these well hooked, then, all other efforts of release having failed, they swim swiftly toward the beach, where, with a long slack in the line, they reverse suddenly and with lightninglike speed carry the line taut with a snap which only a quick release of the reel could save from parting like pack thread.

As is well known, when feeding they will strike at any moving object. It frequently happens that the swivel to which the leader is attached, quivering in the water under the play of a hooked fish, will be struck at by a free fish; the line, being tied into the eye of the

swivel, is instantly cut and the captive fish released to carry away the hook, leader, etc., while the ocean breezes carry away the remarks of the wielder of the rod. Another favorite form is casting the squid from the beach. These squids are made from block tin, highly polished, and are of the pattern known as the Belmar. Being flat on top and with a pronounced keel they run smoothly through the water, and when rapidly reeled will run at, or close to, the surface of the water. This is rather arduous work but when bluefish are about and striking freely it is fascinating sport.

It is, however, only the really proficient hand with rod and reel which may indulge in this phase of the sport with any degree of confidence. We will spend a short time with him and are ready for applause as we witness the wonderful precision of cast as the glittering metal goes out like an arrow from the skilled archer's bow, to the rhythm of the rapidly spinning reel, which is fairly flashing fire until it drops at the desired spot, when the line is rapidly run in by the hand at the rod until, like a flash of light, the lure is taken and a vaulting, plunging creature tells us a bluefish is hooked. And, what a battle! Nothing of scale and fin is its superior in resistance.

CHAPTER XVIII

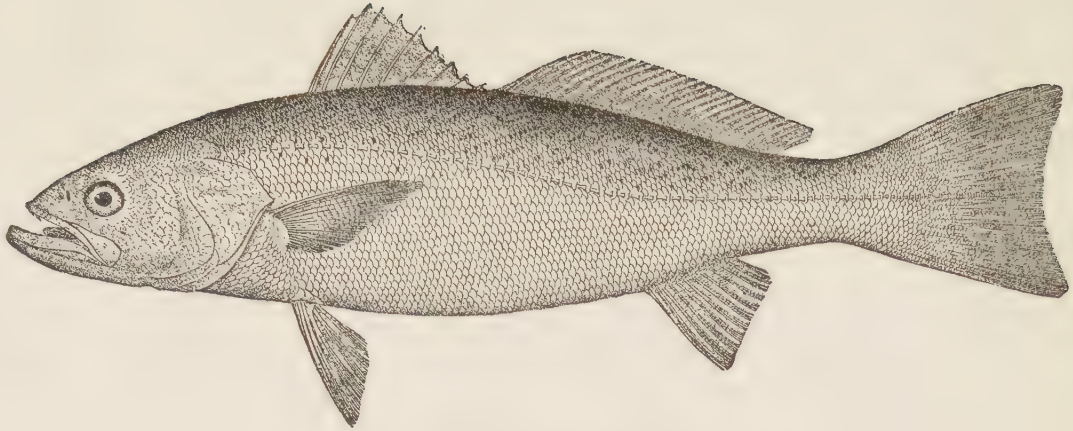
A ROYAL GOOD FELLOW—THE WEAKFISH

OF the numerous tribes of ocean fishes which visit our shores annually perhaps none is more familiar to us than is the weakfish and none has given more pleasure to the angler, as it is found in so many waters which are easy of access to the average man. It has ever been an object of interest as its usual great abundance furnishes a vast amount of nourishing food as well as a high class sport to thousands of devotees of the rod.

We have but few fishes, if any, which have a more interesting history. The white man on his arrival in this country found it here and it has remained ever since to comfort him with food and give cheer to many thousands who love the anglers' art.

While in the early days it was known by a variety of names and is in some localities still a little mixed in title, yet it has to a great extent outlived many confusing cognomens and the term weakfish is the generally accepted title throughout all the eastern and middle Atlantic states.

There are three well defined species of this fish on



THE COMMON SQUETEAGUE
Cynoscion Regale

the Atlantic seaboard, two of which are important; our own familiar species and the one which is known as the sea trout of southern waters. There is the third one which has been but sparingly observed and which does not take an important part either as a food fish or of interest to the angler.

The name "squeteague," which still holds with our own species in some localities, is of Indian origin, and like the names "chickwit" and "squitee" is gradually dying out and fast becoming obsolete. For memory's sake, however, it would be pleasant to have the name "squeteague" retained as it has a musical sound when pronounced by the few descendants of the Shinnecock tribe which still survive.

The time of arrival of the weakfish on our coast is usually in May and it remains with us until well into October. During all these months it is to be met with in the bays and rivers and affords an enormous amount of good food as well as the pastime which is so familiar to all.

Twenty years ago it was perhaps the most abundant fish on our coast with the possible exception of the menhaden, which has never been a strictly food fish. But the introduction of the pound net and its persistent slaughter has had its effect, and the numbers of this most important member of ocean tribes are fast disappearing and unless some restraint is placed on this destructive system of fishing, future generations will

mourn the loss of that which we have known in such abundance.

As this system has had such a marked effect on this valuable fish it may not be out of place to dilate a little on past and present conditions. Before the pound net system became so universal it was a sight never to be forgotten to see the large schools of weakfish in the autumn months when they were preparing for their annual leavetaking. At this time of the year they swim much at the surface, eagerly feeding on the young menhaden which at the period mentioned swarmed the waters in countless myriads. Immense schools of the large weakfish, miles in extent, could be seen from fishing boats, the radiance from their well colored bodies turning the water into a deep violet. No such sight may be seen to-day as these fish have been slaughtered without mercy or sense.

I have personally seen as much as sixty tons of these beautiful fish, ranging in weight from four to twelve pounds, in a net at one time, and the great majority of this immense number went to Barren Island to be used as "fish scrap" as the markets were glutted and no price could be obtained for them as food. Had proper legislation been applied at that time the supply could have been maintained, establishing a never-ending source of profit to net men as well as the markets, not to mention the inestimable blessing to the people of to-day who are in need of this very supply. It would

require a volume to describe in detail all that system has accomplished in the way of waste in fish food.

As vast as were the numbers of this fish it seems most peculiar that it is absolutely unknown in European waters. Temperature is in many parts identical with our own waters; they feed greedily on the young of the herring, when possible, which fish fairly swarms in all the waters of northern Europe. It would seem that such an abundance of food would call them there, but such is not the case, and the subject remains one of the inscrutable ways of fish life.

The range of the weakfish is from about Cape Cod in Massachusetts to the northern coast of Florida, and under normal conditions it is abundant. It is a great inshore ranger, visiting all our bays and rivers, often passing entirely to headwaters; and if depth permits it will run into fresh water above where the tide flows.

Its time and place of spawning have never been clearly established. This surely must be prior to the time of their arrival on our coast, or at least before they are willing to take the hook, as specimens so caught rarely or never contain ova in anything like mature condition. It is said the large sea-ranging individuals do at times have spawn when taken, still, so far as I can learn, it is exceptional. I have never seen any of the fingerling or fry taken in the bait nets in any of the rivers or bays along the coast, as is the case with many of our fishes whose spawning habits

are well known. While weakfish are frequently taken along with the bluefish it is a well established fact that when the latter are scarce weakfish are more abundant, indicating that the swifter swimming and more voracious bluefish interfere somewhat with the food supply.

It would be most interesting to the observant if it were possible to get a glimpse into prehistoric times and learn a little of the origin of some species which have not been scientifically threaded out. While I do not make any claim as to correctness on the following thought, still the relationship of the lake trout and the weakfish has been thought possible by many laymen of late years. The contour of body and fin formation, as well as their feeding habits, together with their beautiful coloring in cool water, all go to make a picture of such close resemblance that the thought is inevitable. Regardless of the relationship of our favorite friend, and the jar which separated the family (if such were the case), he is a royal good fellow in angling circles and as such is welcome at all times to the fraternity.

In beach fishing for this species much the same method is employed as in striped bass fishing, except that deeper water is sought out, as they often avoid the bars. They will take the hook at any condition of the tide. Ordinarily the flood tide is the one to be preferred, as then all sea life is more active and food in greater abundance can be obtained. Shedder crab

is a favorite bait for these fish and during the months of September and October it is a great pleasure to be on the beach just as the sun is going down or in the very early morning hours when the fish are on the feed. If the surf is fairly calm a rod of medium weight is to be preferred to a heavy one, as the play of the fish is so much better realized, and a lighter lead can be used in making the cast. In this case a Sproat hook about 5-0 in size or a good stout wire Carlisle is to be preferred to the O'Shaughnessy. Having a goodly portion of the shedder on the hook and the deeper portion of the water selected, the bait should be cast well out, as ordinarily the weakfish trade more to sea than many other varieties. Usually along the inside of the outer bar is the spot to locate them, and if all conditions are right the wait for a strike is not of long duration. They are at all times free feeders and will take the bait without hesitation, and when they do it is with a rush that few fish can equal. It is rare they condescend to nibble; like a snap of a trap it comes, accompanied by a rush which once experienced is always looked forward to with a thrill of expectancy.

Many anglers have said that in the strike and first rush lies all of the glory of weakfishing. Fortunately all do not agree about that. The whole experience is filled with pleasure and if a fish of good size is beached in the autumn months when the water has cooled down from summer temperature, the beautiful pink and violet

color on the body, mingled with the yellow of throat and fin, make a picture which has not yet been imitated successfully by the brush of any artist.

In boat fishing for the same fish a few points are always to be remembered. Absolute quiet is to be recommended, particularly if the water is at all shallow, as the fish is timid and will not as a rule feed if much noise is about. This more especially applies to the boat as it rests on the water and there is vibration where commotion in the boat is permitted. I know of no pleasanter pastime than to spend an evening with an agreeable companion on some quiet river where weakfish are holding forth. Having selected the edge of a channel way, quietly anchor the boat just at the edge of the flat and with light rod and other tackle suitable in hand allow the bait to pass out with the tide. If the current should be strong it may be well to use a light lead just sufficient to carry the line down a little, not necessarily to the bottom but always below the surface. It is not necessary to use a float in night fishing, as the fish will rise to the surface if quiet is maintained, and, with line stripped of all impediments, the strike when secured is of the most pronounced kind. Without any float or other obstruction in the water the sport partakes somewhat of the nature of flyfishing. In the thoroughfares of Barnegat Bay this method of fishing is much in vogue and is truly delightful sport as the fish as a rule run from four to six pounds in

weight and are hard, game fighters. Pieces of menhaden are frequently used in this fishing and are generally very successful as the tideway is usually quite strong at these points. A light and very bright metal spinner attached above the hook often proves a good attraction as whenever the bait is moved the spinner revolves, thus adding to the lure.

Brothers of the angle, come with me any night; the moon is lighting sky and water. We will push off in our light skiff and round that point out yonder. The air is just chill enough to suggest a good stout sweater under your fishing coat; we have plenty of bait, and a supply of sandwiches, for the fish may not like just the stage of the tide as it is to do their best for us, so we may have to wait a little for them. The air hangs quiet, not a leaf or blade of grass stirring; all nature is in repose. Those oar locks seem noisy tonight. If the wind was stirring, they would not be noticed. Our coming has disturbed that muskrat which goes off the bank with a splash, startling us both. The cry of the loon across the channel sounds uncanny. But never mind; they are nothing but the voices of nature.

Now, I will swing the boat head to the current and you lower the anchor. No splashing, mind; we are in quest of a game which likes to have his own way about outside disturbances. I think a trifle of lead will be best as the tide is quite full and the water at this

point full ten feet in depth; about a quarter of that crab will be right, for the tide-runner has a good size mouth and, if about, will take it all in a wink. Keep your thumb firmly on the reel while allowing the line to pass out, or you may have a wrinkle-hawk in your line if you are off your guard when the strike comes. Keep on passing out line; you are all the time hunting new territory and no one knows just where they may lurk. No, that nibble is not a tide-runner; it is at best a garfish too narrow-throated to take in such a morsel. Whiz-z-z-splash! you have him at last. Let him run; do not hold him, or you will part the line or tear out the hook; easy now—he is running to the side; keep a taut line, ready for the break which will come. There it is. He was well out of the water that time; those thousands of diamonds in the air are just drops of spray thrown high in the air by his tail. No, do not hurry him. Just keep taut line, that will do the trick.

Nervous? Well, that belongs to the novice; just keep your head on your shoulders, and his head toward you. Not ready for the net; there is a bunch of fight in him yet, but every moment is telling now; and you have done well. We never could get him in without this net. What a beauty! All of seven pounds—congratulations! See that sheen of pink and silver, and how it shades down along the sides running into the purple of the iris; how beautiful he is! No "old master" ever did work like that on canvas. God made

that creature just to glorify Himself and show His handiwork.

Dear old Barnegat, with its thousands of such memories. May its quota of fin and feather never grow less. It has been the playground of the people for more than a century and its history is fraught with conquest of rod and reel over its myriads of tribes which come and go as the seasons roll around. And of all its inhabitants none have given more pleasure and delight to thousands of people than have the golden-throated weakfish which nestle in its bosom.

CHAPTER XIX

THE DELECTABLE AND GAMY SNAPPER

IN writing of this fish it has become necessary for obvious reasons to treat it entirely separate from its parent; for years this has been the custom when discussing its merits and in the tributes which have been paid it by the ablest of pens.

It is the offspring of the bluefish and early in life it makes manifest its propensities, and furnishes delight to thousands of people of all ages, and in all walks of life. It is well known on all the tidal streams of the middle Atlantic states and is eagerly sought on account of its supreme game qualities as well as its delectability on the table.

For years many held that the snapper was a distinct variety of fish and never reached a size of much importance as a market fish. Even within the past twenty years I have heard the subject discussed with warmth, and those who should have been fully aware of its family relations firmly held that it was not the progeny of the well-known bluefish; but, like so many of the curious facts of fish life, the logical view is now accepted by nearly all who are familiar with this fish.

There is but little doubt that the snapper when fully considered is the most important fish which visits our waters, and its welfare should be guarded with the most zealous legislation. While, justly, every safeguard has been thrown about the trout and other varieties of fish which furnish but little food when considered in that light, laws have never been enacted looking to the conservation of this most valuable commodity. It is the shameful destruction of this species by the "pound net" which I have in mind. There is no fish which has been so ruthlessly destroyed. The nets are set directly in the highway of these migrants as they crowd along shore to escape the larger fish which feed on them, so they are forced into the nets and are destroyed in untold millions. It was no unusual thing in past years to see as much as one hundred barrels of these immature fish in a net at a single lift. Bear in mind that if allowed to attain their normal growth in two years these same fingerlings would have represented the five- and six-pound fish of dealers; then consider the great number of these same nets stretching out from all favorable points along the seaboard, and the wanton waste of one of our most valuable species of sea food may be imagined better than described. Speedy protection is needed.

The growth of the snapper is a phenomenon of nature. Hatched, as they undoubtedly are, well at sea early in summer, they reach the coast in the latter

part of July and at once enter the rivers and bays of all the middle Atlantic states simultaneously. They are about three inches in length on arrival and immediately take up the life which they follow without variation to the time of their final taking off, that of continual feeding. It has been remarked by careful observers that the fish doubles its size each month of its early existence; while this may be questioned literally, still it is not as much of an exaggeration as some fish stories which are commonly accepted.

Several years since, Shark River in New Jersey, which is, properly speaking, but an arm of the sea, became closed during an August storm by having an immense sand bar thrown across its mouth and was not opened until the following November. This gave those interested a full opportunity to watch the growth of this fish; these ranged in August from four to five inches, but at the time of the opening of the inlet in November they had attained the length of from twelve to fourteen inches and a weight of from one to one and a quarter pounds, thousands of them being taken of the latter size. If weather conditions hold good they will stay in inland waters until well into October, when they pass out of the inlets on their way to that mysterious retreat usually termed "southern waters," and it is at this migration that the wanton destruction by the pound nets is repeated.

During its stay in inland waters it affords sport to

untold thousands of people, every age and both sexes paying it homage, as it is a bold and free biter. Every day the docks and boat landings along the river fronts are lined with enthusiasts with all sorts of tackle plying the water in quest of their favorite. Long bamboo poles are whipping the air as the baited hook is swung in and amid shouts of joy the hapless fish is yanked out. This is one element of the sport, but it is not the class which yields the enjoyment pertaining to the true angling spirit; that can only be had by using the same care and thought as is centered on the more aristocratic trout equipment. One might as well expect to get soulful music from a violin strung with wrapping twine as to get the essence of delight from angling with devices correspondingly crude.

When September is well advanced and on a day when the sun is not too bright, the condition may be regarded as favorable. And now as to the tackle, for upon this item the very essence of the pastime depends. I will describe a rod which I had built for this purpose. It is six feet eight inches in length and of a slightly heavier build than an ordinary trout rod. Its shorter length makes it slightly stiffer and in a tideway that is a very desirable quality. The butt section is of lancewood, very light in caliber. The tip of six strip bamboo, made to balance with the butt. The hand piece ten inches in length, cord whipped, and all mounted in German, or as it is now called,

Liberty silver. Length of finished butt, two feet ten inches; length of tip over all, three feet ten inches. This makes the nicest balanced rod of its kind which I ever took in my hand and works marvels with the snapper and incidentally the perch.

I use a small rubber and German silver reel of good grade and what is termed six thread special line. This is very fine and has a diameter only little more than a linen sewing thread, but it is of extreme strength. At this point it may be well to note that silk lines are of no use in this class of work, as salt water destroys the life of the silk at once and the enameled ones are worse than useless. While the following is good for all lines used in salt water it applies particularly to the delicate line I am describing. Have a small cake of paraffin wax at hand when in from your trip and run say fifty feet of the line through this, drawing the line between thumb and wax two or three times while the line is yet slightly damp; this lays all the fibers of the linen together and will double the life of the end of the line which gets the greatest use.

The hook is ringed Carlisle 2-0 in size, into the ring of which I fasten a six-inch section of hair wire with a small swivel at the end to secure the line. The wire is an absolute necessity as the teeth of the snapper will cut the gut-snelled hooks free as easily as a knife.

For a float I secure two long bottle corks and, having

first cemented the ends together, pass a small piece of bamboo through their length; then with a very sharp knife I shave them down, using sandpaper to smooth the work, until the greatest diameter is not much greater than a stout lead pencil. This gives me a float which will carry the tackle and a split shot sinker. Its chief charm, however, lies in the fact that it is quite buoyant, yet it offers little resistance when the strike is made with the light rod as described. Such is not the case when the more cumbersome floats are used. My light float passes easily through the water and the spring of the rod goes directly to the fish, greatly increasing the sport.

Like his progenitor the bluefish, the snapper is a positive "free lance" and roves the waters continually, and the fact that he is found in a certain place to-day may be no argument of success at that spot on the morrow. There are, however, locations where he may be looked for with a greater degree of confidence than at others. At the points of sand bars and around some sunken objects where the water swirls in eddies are both good spots to try out for the game.

Like the bonito these fish are attracted by scent and will follow a trail through the water as accurately and persistently as a hound will follow a woodland trail. I have had great success with this fish by pursuing the following method. Secure five or six full size menhaden and inclose them in some coarse material, then

mash or cut them so the blood and oil ooze freely from the mass; when the proper spot is reached by your boat hang the bag or sack over the side of the boat swaying in the waters. From time to time press the sack of pulp so that the exuding oil will pass out on the water. This creates what old-timers term a "slick"; the oil, breaking out in little globules, soon spreads out and if fish are in the waters soon a splash is heard as the fish breaks through the film of oil looking for the cause of it. Ordinarily when one fish is in evidence his movements soon attract others and they in turn draw still more, all searching for the source of the oil they love so well. While they will take readily small pieces of menhaden when on the hook, still by all odds the most killing bait is the "spearing" or what is familiarly called "white bait." This is a small semi-transparent fish, very slender, and is persistently pursued by the snapper throughout the entire season. To use, pass the hook through the mouth and out at the gill opening, down the length of body, and then through about half an inch from the tail, as the attack is invariably made from that direction. Considering the swiftness and vigor of the strike the fish is almost sure of hooking, and the attention must be riveted on the sport, as the strike by the fisherman must be given instantly the fish hits the bait so as to firmly set the hook. The sport is of high order; and once enjoyed will be returned to at

every favorable opportunity. I have taken with me men who stand high in trout fishing ethics, to whom it seemed like some fancily woven tale to be told that we have a fish in our waters ready to take the bait whenever offered, which on the platter are as delicious as their own worshiped *fontinalis* and whose fighting capacity, ounce for ounce, is just as great; and all to be taken from waters where there are no underlying roots to ensnare the hook, nor overhanging branches to put "wrinkle-hawks" in lines and incidentally profanity where it hath no place by right. After every first experience of such a man I have yet to see the first one who did not enthuse and vote the sport prime. I have no intention of, nor should I be understood as, detracting in any manner from the character of the trout—he deserves all that has been said of him and I love each spot on his glorious body—but I have written rather that others may know, by pursuing something of the course suggested herein, that delights as great as are given the trout fisherman await those who perhaps are denied by force of circumstance the privilege of taking the lord of the brook and yet are contiguous to salt water streams. To such anglers, sport royal with the delectable and gamy snapper is waiting at their very doors.

CHAPTER XX

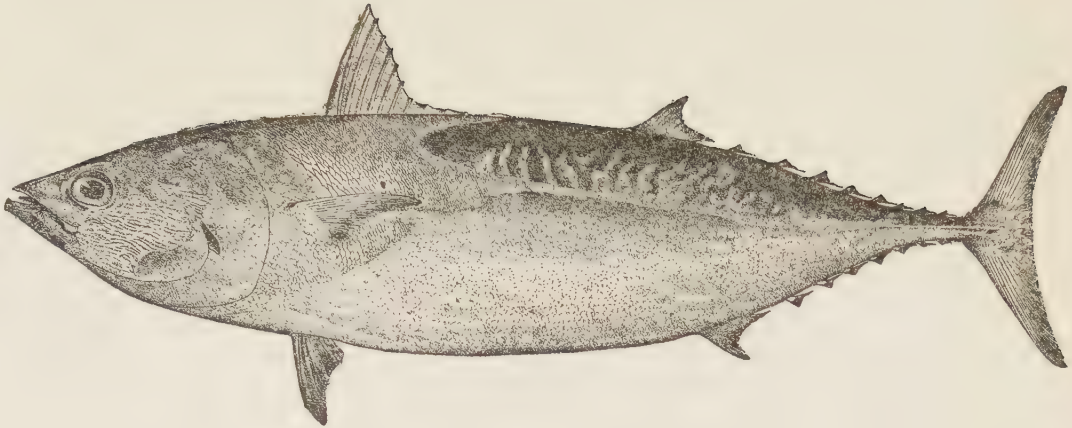
THE TUNA CONSIDERED AS A GAME FISH

IN preparing this chapter I wish to make an apology to the reader for writing on a subject describing in detail many of the qualities as a "game fish," for I must acknowledge that I have never had the good fortune to kill one on my own rod. While I have been among them where they were churning the water into foam as they rushed the food through the brine, and have witnessed the battle of others, still so far my hands are guiltless of their blood.

For many years, and, as a matter of fact, until very recent years this fish traveled incognito in our waters, known always as the "horse mackerel." It was despised by the market fishermen as a destroying nuisance and by the hand-line men as a thing not only to be avoided but to be destroyed on any and every occasion and by any means, no matter how foul. It was also regarded as unfit for food and was always thrown away when captured; yet to-day it is sought for in every way by the fishermen and market men as well as the housewife, who knows so well how to prepare most delicious

salads from the canned product; and with just a little deft touch here, and a little something added there, the average guest has eaten and praised the "chicken" salad of such and such a one as a delicacy par excellence.

I will not attempt to be positive in the matter of who was the first to assert that the "horse mackerel" of the Atlantic and the "tuna" of the Mediterranean and the Pacific were one and the same fish, but I am quite well convinced that the honor belongs to Mr. L. P. Streeter, of Chicago, Illinois. For many years we fished together over many waters and he was a very close observer of any and everything pertaining to fish life. He is an enthusiastic member of the Catalina Tuna Club and has spent much of his available time in pursuit of the species around the Catalina Islands. Perhaps there are but few men in the states who might speak with greater authority on the subject than he. Certain it is, however, that the Asbury Park Fishing Club took up the subject in earnest and had the facts established through scientific investigation, and now the destroying vandal of but a few years since has become the object of the most intense desire among those who are able and are prepared for its pursuit. Beautiful prizes are offered by clubs for the capture of the largest each season and we no longer see the fish wasted when taken in nets, but carefully iced and shipped where they command good prices.



THE HORSE MACKEREL OR TUNA
Orcynus Thynnus

There are but few fish which have a greater range than the tuna. According to the United States Fish Commission, its Atlantic range is from the Gulf of the St. Lawrence on the north to, and across, the Gulf of Mexico and throughout the tropical waters of South America. The Pacific is visited by it in nearly all of its more temperate zones, as well as the Mediterranean Sea. It ranges out from that body of water along the European coast up as far as the Lofoten Islands where it seems to pass out of view.

More than thirty years ago Professor George Brown Goode, of the Smithsonian Institution, in commenting on this fish observed that our naturalists had bestowed but little research of a really scientific nature in any attempt to place it in a proper and intelligent category. As a matter of fact, until very recently but little could be gleaned from any channel except the knowledge imparted by the fishermen, which, though honest and given with the sincerest motives, was at best confusing, for no two of them gave the same version as to the time of arrival and departure from a given latitude or their exact feeding habits. Much has been learned within the past ten years which goes to clear up the disputed points in relation to many important characteristics.

The tuna frequently reaches a weight of one thousand pounds and even greater weight than this has been recorded. It is a most voracious feeder and when

traveling in schools works havoc among weakfish, bluefish and other food fishes; its principal food, however, seems to consist of the herring when they can be located, which it gorges by the hundred. Despite its great bulk it is exceedingly swift in the water and I have frequently seen it, when in pursuit of its prey, rise from the depths with such speed as to vault its body several feet into the air. It would drop back with a splash making one feel thankful that its landing was not in the boat. Whether or not it gorges the victim of its pursuit immediately on striking it, I am unable to state. It is certain that I have never been able to see any object in its jaws as it springs into the air. According to Capt. N. E. Atwood, of Massachusetts, a veteran fisherman and icthyologist, the tuna is persistently pursued by the killer whale, and he once saw one in the jaws of that animal. As Captain Atwood is one who in the years past furnished much information to the United States Commission, as well as to the Academy of Natural Science, there can be no question of the accuracy of his statements. He says that when the fish first appear in our waters in June they seem to be very thin and poorly nourished but soon improve in condition and by autumn are in the most robust condition. When one was taken in any manner, in the days of which he writes, the head and belly were tried out and as much as twenty gallons of fine quality oil would be taken from a large specimen. Continuing he says

that although occurring in large numbers and of remarkable size, no effort is made toward capturing them and when one is killed the flesh is allowed to rot along shore. The flesh may be used in small quantity for chickens, he observes, but seldom or never for human food. These observations are an example of how progress slowly works out, as is also the fact that the writer in his early manhood days saw tons of the finest bonito carted to the compost heap for fertilizing purposes. At that time they were regarded as poisonous and entirely unfit for food; to-day those same fish would command $400 per ton.

It is most astonishing how men who have passed their lives in one vocation overlook the most primary facts of daily and in some instances hourly occurrence. It is not unusual to hear the tuna and the albicore classed as the same fish when they are as wide apart as the poles, there being no similarity save in shape which is something in common. Colors are different and the albicore of our waters never approximate the weight of the tuna. I question if they ever exceed fifty pounds in weight along our coast.

It is not probable that tuna fishing can ever become popular as an angler's pursuit save to a restricted number who have unlimited time at their disposal as well as a plethoric purse. The conditions under which they must be caught if at all are, to say the least, "strenuous." Days, weeks or even a month may be

spent in the search for them without a strike as they may be feeding on something to their liking at the depths of the sea. The custom now is to have fishermen who are passing out to sea daily keep watch for their appearance and a preconcerted signal is given when they are on the feed at the surface of the water. One wealthy resident along shore arranges after the following manner with the men who are offshore in their boats. A cash reward is offered for the first available school of tuna discovered close enough inshore to be reached in comfortable time, or before they settle. If that is done and he is placed among the fish, then the reward is doubled; and as a last bonus, if successful in hooking and killing a fish, the reward is again doubled, so it is at all times worth while to keep an open eye for the ocean racehorse. During the summer of 1915 Mr. Jacob Wertheim, of Deal, New Jersey, succeeded in bringing to gaff the largest ever taken on rod and reel after a battle lasting one hour and forty-five minutes, during which time the fish towed the heavy bank skiff more than six miles. The weight of the fish was two hundred and eighty-six pounds. The following summer Mr. Joseph Cawthorn, fishing with Mr. Wertheim, hooked a monster, which, after a battle lasting two hours and thirty-five minutes, and after towing a very heavy dory stern foremost more than twelve miles, succeeded in unhooking himself to liberty. This fish was in plain view a number of

times, and was estimated at about seven hundred pounds in weight.

No one who has never fought a rushing, plunging, heavy fish to a standstill on rod and reel, can even imagine the terrific strain on arms and shoulders. In this class of work the best grade of tackle must be used. The reel should be of 5-0 or 6-0 size capable of holding from fifteen hundred to eighteen hundred feet of the very best procurable line, with an adjustable drag continually exerting a strain of from 8 pounds to 10 pounds on the fish. This may not sound like a very great strain, but it must be remembered that, in addition to this, the line for perhaps one thousand feet is swaying through the water and adding just so much to the discomfort of the intended victim. The hook must be at least 10-0 hand forged of the best quality and have a spreading barb; a section of annealed piano wire at least six feet in length must be used connecting the swivel and hook. While the smaller fish of from fifty pounds to one hundred pounds will take the trolling squid, or what is known as Wilson spoon, it seems useless to use the same for the larger specimens. They are best taken on a bait, preferably herring or menhaden, while a slick of cut fish is kept going from the boat to attract them. It is now unnecessary for those who have been in the habit of going immense distances to take this fish to continue to do so when they are to be taken within fifty miles of New York

City, and at a small percentage of the cost of the longer trip. It is at best strenuous work, and long as well as disappointing waits are apt to be the portion of him who contemplates the capture of the tuna on rod and reel.

CHAPTER XXI

SQUIDDING AND JIGGING

WHILE in a general sense the above terms are analogous, still the practice as applied to-day has a different meaning in its broad sense and must be so treated. While it is to be believed that all races of men in all ages have taken fish in the manner known as "jigging," yet we of to-day feel that our method is so improved that our fathers were but crude novices, and their appliances things of startling inefficiency. And yet they took fish; and fish a-plenty, if we are to believe somewhat in the lore which is handed down from generation to generation. Perhaps the greater abundance of fish was a cause. It may be that more patience on the part of the angler is to be offered as a prime reason why such good catches are said to have been made. Be this as it may, it is sure that our progenitors knew the value of the unbaited lure when properly manipulated.

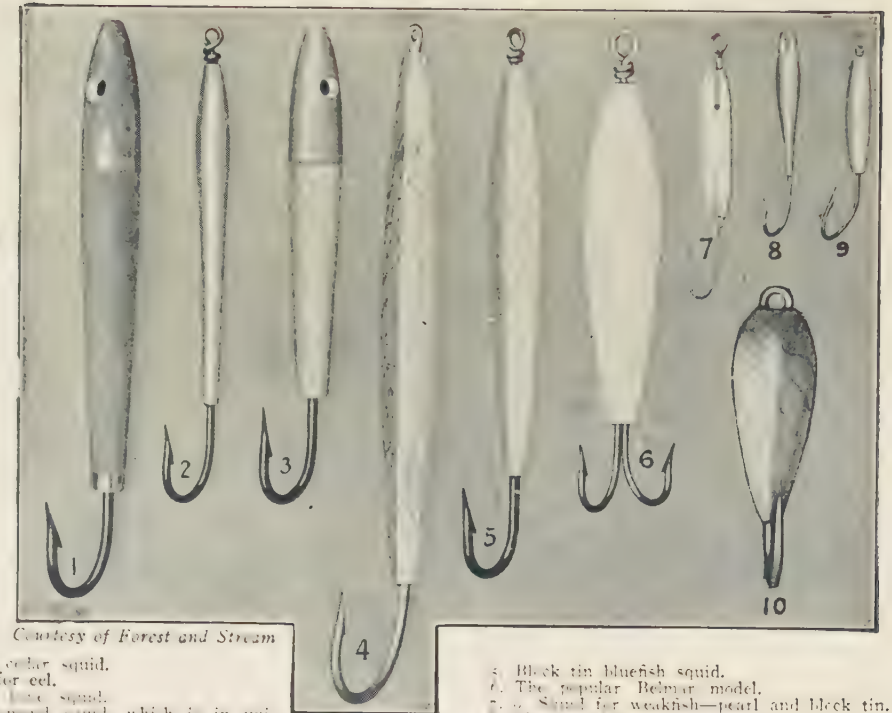
The squid of fifty years ago was a thing of no real artistic beauty and of no specific detail. They were made mostly by the fishermen themselves and in the crudest of molds, each man to his fancy, and all of lead.

As this metal corrodes rapidly it required continual scraping to keep them at all bright. Later what was known in those days as "Britannia ware" became a great favorite for making these squids as it remained bright while in use and was easy to cast. It was the custom of the fish peddlers on their rounds to inquire of all the farmers for cast-off articles made from this ware. No matter how battered it might be it commanded a good price, and was eagerly taken. Later the block tin of commerce came into general use as it is perfectly adapted to this work, and now it is the one article in use.

Of the many designs which have from time to time been on the market, certain ones have been gradually eliminated until but two styles are to be found, while made in numerous sizes. What is known as the "diamond" pattern is the one in universal use; for jigging and deep sea trolling it works perfectly and it is to be doubted if its model can be improved upon. It tapers slightly from the center to either end, in one of which a stout swivel is cast, the other containing the single hook, all harmoniously worked out so that the size of the squid will balance with the hook. The fisherman can procure at the tackle stores any size which may suit his fancy for the game he is in quest of. The other pattern is what is known as the "Belmar" and is totally different from the former, being cast perfectly flat on the top with well defined keel and

nearly always with two hooks set in one end, at the other a free working swivel.

The hooks are set at an angle so that the points will range with the respective sides of the squid and are deadly to any fish which may strike. Some makers are urging the sale of the loose-hook squid, that is, one cast with an eye in the end to which hooks, so arranged that they will swing freely, are attached. The claim for this is that once on the swinging hook the fish has no leverage with the squid proper to disengage itself. The advantage claimed by the adherents of this type of squid when considered from all angles is of doubtful acceptance and the disadvantages to be met with are so pronounced that the old favorite with stationary hooks will doubtless hold sway over its competitor. It was a happy thought which came to the man who first designed the keel to a squid; as the hooks are always set with points covering the flat side, the keel consequently is down and the hooks are always up no matter how rapidly the squid may be run. They are thus ready at all times to fasten in the upper jaw of the fish, which is the desired manner of hooking. The advantage of two hooks is that when once they are set, it becomes almost impossible for the fish to disengage itself from the hook; for if one is released, the other at once sets, so that only the tearing away of a portion of the jaw will set the captive free. This type is universally used in surf casting and is to be



Courtesy of Forest and Stream

1. Loaded cedar squid.
2. Squid for eel.
3. Loaded [illegible] squid.
4. The diamond squid, which is in universal use, size used for Atlantic Coast tuna.

SQUIDS

5. Block tin bluefish squid.
6. The popular Behmar model.
7. [illegible] Squid for weakfish—pearl and block tin.
8. Mackerel jig.
10. A swivel squid for surf casting.

found in the kit of every one who is alive to the possibilities of its use, when bluefish break in or the bass are in pursuit of the mullet in the autumn months. The proper weight is about three ounces, made from block tin and set with double hand-forged hooks.

As the squid has a tendency when reeled in rapidly to rise to the top of the water, being in a straight line with the tip of the rod, it is well to bend the same slightly in the center. This can be done with the hand, and caution must be taken that it be bent just enough to cause the nose to dip when being run; thus remaining under the water slightly, and not at the surface as is the tendency. If the bend is too great, the tendency of the squid is to "flutter," which will not do. A look at one which is in good hands will give the novice a better idea of the proper bend than can well be given on paper.

The sport of taking game fish on this character of tackle is of high order; while the work is strenuous, still the delights are sufficient to eclipse all fatigue. Ordinarily when in use for bluefish, which are usually to be seen breaking at the surface, the squid is cast in their midst—whether they be on flats or in the deeper water—and rapidly retrieved by the reel, then cast again, and the process repeated until the strike is secured. It is an inspiring sight to witness men of experience when at this pastime; excitement is at fever heat and each man takes his position knowing that he

as well as his neighbor knows the game, and there will be no casting across lines or other blunder which so mars the endeavors of the novice. The tackle is the same as is used for bass fishing and as there is no bait to be carried through the air by the sinker the cast is in consequence longer and, ordinarily, more accurate. As the squid offers but little resistance in passing, out—out it goes, a long line of glint in the sunshine, so rapidly does it pass through the air, until it lands at the desired spot, the reel fairly flashing fire in unison with the whole performance.

At the instant of the impact of the squid with the water the reel is checked by the thumb of the caster and the mechanism thrown in gear ready for the retrieving of the line. When this begins the squid at once comes to the surface or nearly so; and as the bluefish is at all times a surface swimmer, the strike is sure to be accompanied by a splash easily seen from the beach, which adds to the pleasure of the scene. If the hook sets, the battle is grand, as the fish having no heavy impediment to drag through the water is perfectly free in his actions, and every quiver and plunge is impulsed to the rod tip. As it sometimes happens several are impaled at the same time on different rods. The springing into the air and the consequent splash as the fish returns to its native element, together with the excitement shown on the faces of the fishermen, as well as their haste to have the fish

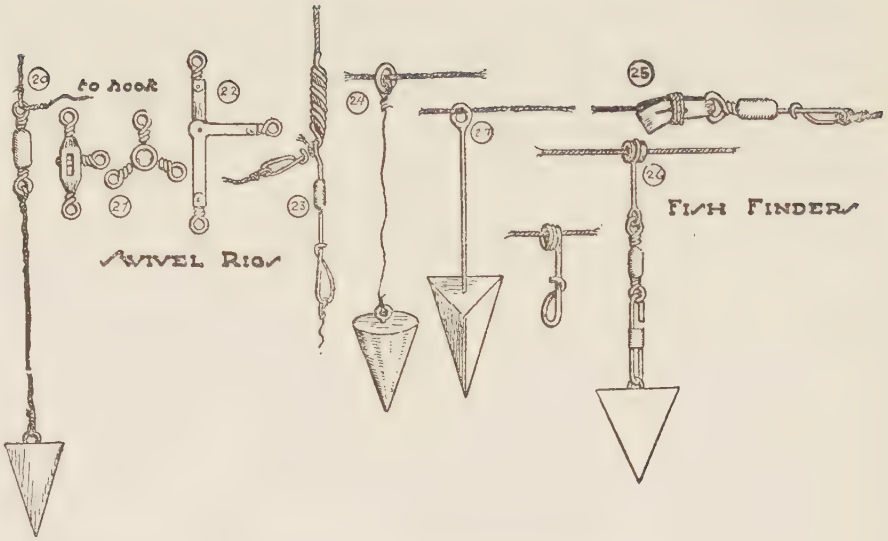
on shore and get back again into the water before the school of fish may have left, all go to make a never forgotten picture of animation.

In using the squid for striped bass the system is much the same although the flats are worked over. As it is rare that the fish are seen at the surface except when striking through a school of mullet the fisherman must work more in the dark as to where the quarry is. Instead of running the squid steadily in it should be moved sharply for a distance of say fifteen or twenty feet, then stopped and allowed to settle to the bottom, then started again sharply and the process repeated until a strike is secured or no success marks the end of the run. I have taken beautiful fish in this manner. As the bass is a bottom feeding fish as a rule, the settling of the squid to the bottom and the quick starting from there toward the surface presents an attractive lure to His Striped Majesty. If a bluefish or bass takes the lure when it is being run rapidly in, the shock to the rod is intense and will invariably stop the reel; in the case of an amateur this will almost always take the reel handle from the grasp of the fisherman, and a reversed action of the reel usually gives a perplexing tangle of line which is known as "wrinkle-nawk" in fishing parlance.

Jigging for fish, as I have said at the beginning of this chapter, has been in practice from time immemorial in one form or another. It is, however, the modern

way that is of interest as well as the species to which it applies. It is well known that a moving lure always attracts fish, as essentially at the bottom of the ocean as at the surface, and some of the most remarkable catches of our very important fishes have been made with this system. It may seem strange to the layman to be told that almost every variety of fish can be taken in this manner, which consists of lowering the "diamond" squid close to the bottom of the ocean, then constantly moving it up and down in a series of rapid jerks. If fish are on the feed they are sure to be attracted by the moving metal and will be easy prey. I personally have taken the following species in this manner and can say it is great sport, as it is usually conducted where the water is from sixty feet to over one hundred feet in depth: bluefish, bonito, weakfish, codfish, hake, whiting, haddock, plaice, and scup or porgy, as well as the roving sharks which will invariably break in when the fish are feeding well, attracted by the scent of the bait as well as the sight of the moving fish. Many times when the fish were well to the surface after a hard and long battle have these monsters gathered in my quarry, sometimes taking tackle and all; at other times cutting the fish off at the shoulder, clean, as though done by a butcher's cleaver, leaving nothing but the head attached to the hook.

This sport is at its best during the months of Sep-



Courtesy of Forest and Stream

SWIVEL RIGS AND FISH FINDERS

tember and October and the morning is the best time, ordinarily. A good motor boat is needed and that all-essential, a competent surfman, must be in charge. Just as the first rays of the coming sun are in the east, away we go over the bar to the grounds which we have tried out so many times and, like all matters relating to the sport, have developed uncertainty as to results. As the whirring engine drives the boat through the quiet waters, disturbed only by the swells rolling lazily shoreward (for it is at these times, when general quiet is the order of things, that the best results are to be had from this class of endeavor), a flock of ducks sleeping back of the bar springs into flight and goes winging away into the semi-gloom, noiseless as Time's flight and doubtless perturbed at the breaking of their slumber. Farther out with a complaining cry a loon rises with lumbering flight and slowly takes his way to where he may not be disturbed. It is lighter now and we see him as he again takes to the water after his accustomed short flight, striking the water in a reversed position to his line of flight so that he is always headed in the direction from which he came. At the time of settling down from the flight the usual cry, which has been so aptly described as a maniacal laugh, is let loose over the waters. Nature has given the bird its peculiarities, and it does no harm with its wailing cry, still I never hear it that it does not fill me with a strange unrest.

Standing in the bow of the boat is the sturdy surfman who for twenty years has taken so many ardent men on this sort of trip and who, if fish are to be had, never misses his share. His partner is at the engine giving it the attention necessary, while the writer's hand is at the tiller ready to swing the boat to any point indicated by the hand of the man standing at the bow; but we notice that, while in quest of fish, his gaze is not directed along the line of water but high up into the air. To the novice this would seem sheer nonsense, but the surfman knows that in this class of fishing our first signals will come from there and not from the water. He is watching the myriads of gulls circling high in the air and well he knows that the sharp eye of these birds will note the first fish which are feeding in schools.

We are now perhaps five miles off from the land before the motion is given by our pilot to sharp down with the rudder and run for a bunch of gulls which are beginning to dip and swirl toward the water, indicating that below them a school of large weakfish are at work on some weaker inhabitants of the deep. As we run under the gulls particles of flesh may be noticed at the surface; a mute testimonial of the grinding process going on down below. It is these particles of small fish which attract the gulls, and which in turn betray the presence of the larger fish. The anchor down, rods are in hand—and just here it may be well to mention

that rods for this class of work should be at least ten inches shorter than the usual surf rod, as it will be found to be much handier in all particulars; in all other forms the rig is the same as used on the beach. And now the diamond squid plays its part; being of straight line it goes to the bottom like a plummet and should be of the size set with an 8-o hook, as fish rise and lower when feeding. We try different depths, each man making a selection of depth and holding to that until fish are located in one of the strata selected. The squids meanwhile are continually going up and down just as much as the swing of the rod will permit; meanwhile we keep a firm thumb pressure on the reel knowing well that when the strike comes a loosely guarded line will be a keen regret.

Suddenly a rod tip goes down like lightning and is buried deep in the water. A fish has struck and is rocketing away for release. Fifty, perhaps a hundred feet of line are taken in the first straight run. A weakfish rarely makes long runs, but under the boat he goes. Now mark well that he does not foul the line with the anchor rope or all will be lost. The fish cuts wide circles at first, but, as he weakens, he narrows each one until, after a game display, he is gradually brought around to the gaff. Then the real glories of the captive dawn on the mind, for of all the fish that inhabit our waters few, if any, are as sublimely beautiful as the large weakfish when the cooling autumn waters impart

to them the most gorgeous hues. They have to be seen, however, immediately after being taken from the water to get full realization of their beauty. We exult, yet pity the gorgeous captive as we lift him over the side of the boat. There are at least ten, possibly twelve, pounds of him and as royal in beauty as any salmon that ever graced the rod of man.

The fun goes on for perhaps two hours with some one at battle all the time, when of a sudden it stops—not a strike to be had. A shark has made its appearance and we must give up the sport or seek another school. My greatest catch in three hours was thirty-five fish, each a monster, ten of which weighed one hundred and six pounds. Old Ocean is indeed lavish of her gifts to man.

CHAPTER XXII

WHITING, THE ACCOMMODATING FOOD FISH

AS time passes and the years unfold, it is a matter of intense interest to the salt water fisherman how certain varieties of fish grow scarce and others come into prominence, which in earlier years were scarcely known to the fraternity. This is markedly true of several species and particularly applies to the subject of this sketch.

Nature seems never to tire of fitting her children to the changing conditions which must take place to fill out the rounds of universal law. It is most noticeable that when food supply of a given kind is not to be had in waters where it ordinarily has been plentiful, consequently leaving the waters barren of fish life of a particular species, it is an invariable rule that some variety of fish will suddenly become plentiful at the particular spot to partake of the food which is suitable for them. Thus they become permanent visitors to waters which before were rarely in their line of travels; and so in one continued round of seek and sought the inhabitants of the great deep fulfill the unvarying laws of their existence. With fish as with so many others

the name used for them in one locality means nothing to the people of another, even though of but small difference in latitude.

While the whiting has been abundant along the northern New England coast for more than a century, it has been less than one quarter of that period particularly noticeable along the coast of the middle states. Possibly fifteen years since when it began appearing in considerable numbers, it was known along the entire New Jersey coast as "frost fish." It is generally termed thus even yet, though this is a perfect misnomer, as the true frost fish is a much smaller creature and of entirely different habits.

The name arose undoubtedly from its generally appearing on sharp frosty nights and trading close in along shore, so that multitudes were picked up from the beach where they became stranded and were still alive. I have seen thousands of them picked up in a single night, fish weighing from one to three pounds each, and all of them just in from the sea. Coming as they do at the season of the year when other fish are particularly scarce, they have proven a boon indeed to numberless people who would otherwise be unable to have fresh sea food on their tables.

Just why they permit themselves to become so helplessly stranded is of course conjecture, and has been the subject of much discussion, the most plausible theory being that in their eager pursuit of the sand lant, or

sand eel, as they are usually termed, the sudden transition from the deep and consequently warmer waters to the shallow and naturally colder condition causes them to become numbed to a degree of helplessness. Added to this, doubtless, is the effect of the very fine sand which is ever mixed through and carried by the tumbling waves on the beach. They, being a true deep water species, are unaccustomed to the clogging of the fine sand, which must inevitably get into the gill openings, thus adding to their discomfort and danger. As they appear to be much more abundant during the darkest nights, it is an inspiring sight to stand on one of the fishing piers and watch the long line of lanterns carried by the eager searchers for a delectable bit of fresh sea food, as they weave in and out for miles in either direction, resembling nothing as much as fireflies on a summer night. The presence of the fish on the beach can be easily detected by the flopping they make as they reach the sand and as they run in this way only during calm weather the noise of their tails striking the sand can be heard for a considerable number of feet away.

As a table fish the whiting does not rank equal with many of our choicer varieties, but does come as peculiarly acceptable at the time of our greatest need. The flesh is white and flaky, though inclined to be somewhat soft, which, however, can be corrected to a great extent by liberal salting as soon after taking as

possible. This makes the flesh firm and places it in good form for the pan. This fish usually begins running along the New Jersey coast in November and remains until the following May. While there are frequent periods when they are not to be taken, still the fact of their presence is not affected. During storm periods and very high winds from any quarter, they apparently drop out into deeper water and there remain until weather conditions are suitable for their return to inshore waters.

While the name "whiting" is quite suitable for the middle states and is becoming more used each year to identify this fish, we run into confusion as we reach southern minds, as south of the Chesapeake the fish bearing the same name is one of the most abundant and is totally different in all particulars. The appellation "silver hake," which is much used in northern sections, would seem to be a fitting name if it could become universal in application, as it confuses with no other fish, and is appropriate in all ways. It does seem to be a matter of great surprise that no earnest endeavor has been put forth by authorities looking to the betterment of conditions pertaining to fish nomenclature. More than twenty years ago George Brown Goode, then director of the United States National Museum, realizing the growing importance of this fish, observed that "silver hake" was an altogether fitting term and should be used.

Until 1880 nothing was known of the breeding habits of this fish, and chance then threw the knowledge into the hands of those who were pursuing another subject. While exploring the bottom of the sea off Newport at a depth of from one hundred and fifty to three hundred fathoms and at the edge of the Gulf Stream, myriads of the fry of these fish were obtained, ranging from one half inch to three inches in length, and with them many of the adult fish were taken heavy with spawn, so it would seem that the spawning season covers quite a period of time. This documentary proof from the Smithsonian Institution is most interesting, as it sets forth on the same sheet that this discovery may serve as a clew to the spawning place of the bluefish, which has not been discovered. The document is more than a quarter of a century old and has been in my possession nearly as long, yet, at the present writing, the exact spawning habits of that most interesting and valuable species is still a mystery.

To the angler the silver hake is growing in importance with each season. Perhaps the old-timer, familiar through long years of success with more important species, may not enthuse over it as an angler's favorite, and justly so, but all should remember that not every man is so fortunately situated either through environment or purse that he may pursue at will his choice, taking rather such as is consistent with his means in all particulars. To such, the hake comes as a

boon and is welcomed both by the man at the rod end and on the table by his family. Long years since, the English and French nations learned the value of appreciating the delights to be had from taking the humblest of fishes on lightest of tackle. This should be an object lesson to our own people, who have been accustomed to so many of nature's blessings in its fullest form; for all should begin to learn that many a grand hour and day may be had with very humble varieties of fish if the proper spirit is observed, and care is taken to put into practice the finer lines of endeavor.

The silver hake can be taken on a great variety of baits, as it is not a fastidious feeder—sand eel, spearing, and mullet, when it can be obtained, are the favorite baits, but bits of fish as well as clams are very successfully employed. The sport is always at night as these fish rarely take the hook during the daylight hours.

It is a most inspiring sight to visit any of the fishing piers along the coast when a run of these fish is on. Every sort of tackle which the mind of man has brought out to the day of trial is employed; good, bad, indifferent and even worse are in the game. The users can ordinarily be catalogued about the same way, hand lines with sinkers swinging high over head one moment, and the next paying respect to another fellow's ear not far removed, and then the mixup, until all is straightened out through some kind hand and

gentle words. But these men are after meat, and not sport in its true sense.

The proper way to get from these fish all the elements of angling delight is to use a light rod with line of not more than 9 thread diameter and all equipment of like weight. As the fish swims much of the time well away from the bottom, a float can be very successfully used and is pleasant, as then the bait is well away from the annoying calico crabs and skates. Just enough lead should be used to keep the bait down as well as to give impetus to the cast. A 4-0 ringed Carlisle hook is the one most desirable, as it has a most keen point and is slightly curved, which seems to be of benefit in taking this fish. Into the eye of the hook a section of fine wire about eight inches in length should be fastened, this ending in a swivel into which the line must be tied. The use of the wire is necessary as the teeth of the fish—sharp as needles and in most formidable rows—work havoc to gut snells. When they can be obtained there is no better bait than the spearing or, as they are generally called, "white bait." Pass the hook through the mouth, out at the gill opening, down the body near the tail, then through the body; this will give a nice lure, and it should be trolled through the water gently to add to the chances of a strike as soon as in the water. The line must be kept taut as the fish never nibbles, taking bait with a rush, and is quite as likely to run towards the pier as away from it. Complete

control must be kept continually so the strike may be felt, as it is dark and the float is a poor object to see out on the waves. Another method much employed is a very light cane rod and single line, less in length, to which a small metal squid is attached. This, moving rapidly through the water, is most effective if fish alone is the objective, as thus they may be taken in quantities.

CHAPTER XXIII

THE CROAKER

THIS fish is fast growing in importance to the "angler" as well as in an economic sense. To him who is skeptical in relation to the very important part evolution plays in all the affairs of life a lesson of practical value is at hand, should he be willing to listen or observe how that subject relates to marine life in all its varying moods and phases.

No observant man will deny that points and basins as well as channel ways are continually shifting. Where there are good feeding grounds in many cases, one season, the next will find barren of the food that certain species of fish require. This is particularly true of the ocean front and the inlet channels proper. Within the past twenty years I have known the ship channel of Barnegat Inlet to shift more than one half mile within a period of one month, thus covering over with its shifting sands the bottom of the channel where many varieties of bottom feeding fish were wont to gather, and opening up another feeding ground which might be strewn with quite another variety of food and consequently inviting another variety of fish to the grounds

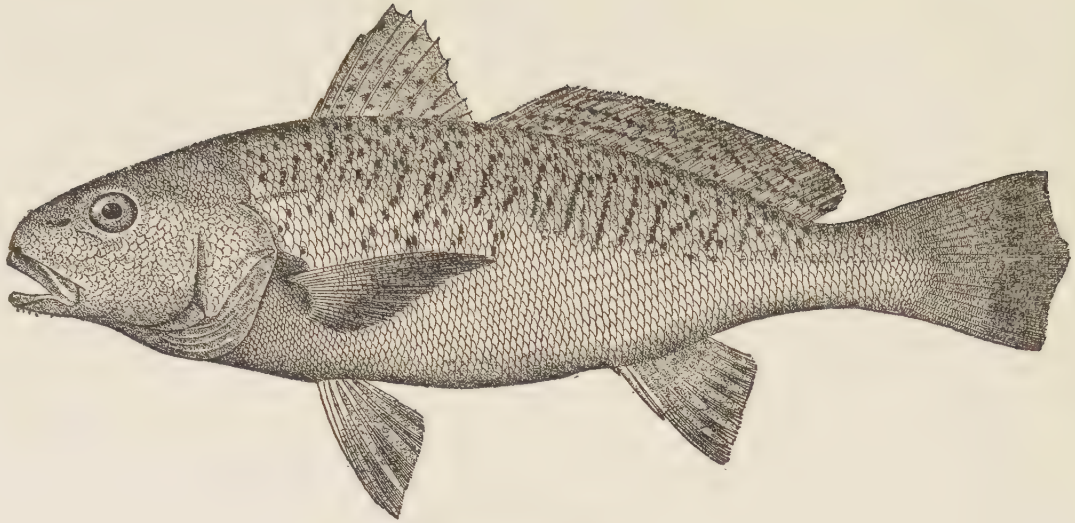
than were to be found in the old channel ways. Precisely the same condition prevails on the ocean front. Bars are changing with each storm or high wind, and where the barnacle prevailed in the deep cuts, together with mussels and like food for the bottom loving kinds of fish, the drifting sand has formed bars and reefs which immediately invite the shrimps and sand lant which call together the free swimming fishes to partake of the repast which has been spread on nature's table. I wonder how many of the present generation of readers recall dear old "Fred Mather" and the many precepts he showered about him in his kindly humorous way through the columns of the journals he loved so well. To me he was ever an inspiration, both through personal contact and through his writings. If there was one subject which he dwelt on more than another, it was to see what was before you and think it over, which brings to mind:

> Happy the man who studying nature's laws
> Through known effects can trace the secret cause.

All of which leads up to the subject of this sketch and introduces a fish of really fast growing importance. While I would not hold forth the argument that this fish is in any sense a new variety, still I wish to emphasize its increasing importance to the angler, as well as to show how completely it has changed its habits in some respects within the past few years. Until pos-

sibly fifteen years ago it was never taken on the hook from the beach. The first I ever knew to be taken in this manner was from the Asbury Park fishing pier about the period last mentioned. While it was always plentiful in the waters of Barnegat around Beach Haven and farther south, but rarely of a size much larger than one pound and indeed that size was rare, I was greatly surprised one September morning to be informed by a close friend that he had taken three croakers of a most unusual size from the pier the previous evening. While I did not in any manner question the statement, still it was such an unheard-of matter that immediately much interest was manifested, and the following evening I took four of about three pounds in weight. As we were fishing from the pier and casting as far to sea as possible, we were taking them at an approximate distance of seven hundred feet from the beach proper. The same week, however, the first one to be taken by any one from the beach fell to the lot of Wm. B. Guild of Newark, New Jersey, who, in company with myself, was fishing on the Avon, New Jersey, beach. Veteran as he was in all matters piscatorial, he was absolutely unacquainted with the specimen and was as surprised as delighted with his catch.

This fish has not had the attention given it which its merits warrant, either from the angler's standpoint or from that of icthyologists. In the estimation of the former it is rapidly growing in favor and, if its present



THE CROAKER
Micropogon Undulatus

abundance continues, will be before long one of the prominent varieties in the markets. It is sometimes sold under the name of "white bass" but has no claim to such a title as it does not belong to the bass family but more properly to that of the "drums." It probably received this name in some manner from its close resemblance to a fish which is very abundant on the Pacific coast and is known there as the white "sea bass," although it is an altogether different fish. The word "croaker" is in general use along the coasts of New Jersey and Delaware, but it is corrupted into "crocus" in the Chesapeake and farther south the name "ronco" is in use. While I have never taken this fish in the extreme southern waters, still I have never been able to meet with any one who has ever observed them there as large as we meet with in the more northern waters; and even with us the fish which trade in the rivers and bays are not on the average more than one half the weight of the specimens taken in the open sea. As before mentioned, this fish has not received the attention from icthyologists that it deserves. Such close observers as Holbrook and Stearns, as well as others, give it but a passing notice, while Dr. G. Brown Goode in his *American Fishes* devotes not more than a quarter page to its interests; but he does observe that it rarely passes to the north of the Delaware capes. At the time the book was issued his observations were doubtless correct, that being in 1888.

Its range at this writing is as far north as Sandy Hook, where it is most abundant, from middle August until well into October, and reaches a maximum weight of four pounds. I have taken these fish for many years miles at sea when fishing for weakfish in the manner that I have described known as "jigging." At that time they are usually to be found on muddy bottom and where the water is around sixty feet in depth. That they are by no means a sluggish fish is made apparent from the fact that they will readily take the moving squid, showing that they are ready to seize a moving bait when offered. Of its spawning habits but little has been written; Stearns says it doubtless occurs in southern waters and in the grassy bays in quite shallow waters, as it is only in such localities that the very small fry is observed. Its extreme range is known to be at least to the south of Brazil on the Atlantic seaboard, and now as far north as Sandy Hook.

As a food fish it is superior to the weakfish, and closely resembles the kingfish in flavor and solidity of its flesh. It is most excellent salted, and is rapidly growing in favor for that purpose, while down the coast the past season our catches were eagerly sought for by the residents, and not a fish was permitted to go to waste. While not decrying the kingfish, which has for untold years been a prime favorite with the angler as a supremely game fish, still it has no points of merit over the "croaker" in this respect, and fishermen are

duly recognizing that fact. It readily takes a number of baits and is a very certain fish to hook once it strikes the bait. Doubtless the shedder crab is the best possible bait to use but pieces of squid, as well as the skimmer clam, are quite sure to give results. Unless the day be very dark and stormy, it will rarely make its appearance before dusk, when it may in confidence be looked for.

To have the croaker at its best from the sporting standpoint, the equipment should consist of the surf rod of regulation length and style but of the lighter type, such as will carry about two ounces of lead in casting, a 1-0 reel of the multiplying type and about nine thread line. This makes an equipment of nice balance, and gives every atom of sport to the fisherman, as such a rod will be flexible and yet heavy enough for all practical purposes. The leader need not be more than a foot in length and the hook, by all means, the O'Shaughnessy hand forged of high quality, as on the hook much depends—about 3-0 is the right size—and the gut loop tied. As before stated, there is but little use making the trial while the sun is yet shining brightly; but when the sun has gone down, and the shadows are lengthening, then is the time for action. Equipped as described, the angler should seek a quiet spot where bathers are not in evidence. Here again a peculiarity asserts itself. Since it is a bottom loving variety, it would be natural to seek these fish in the

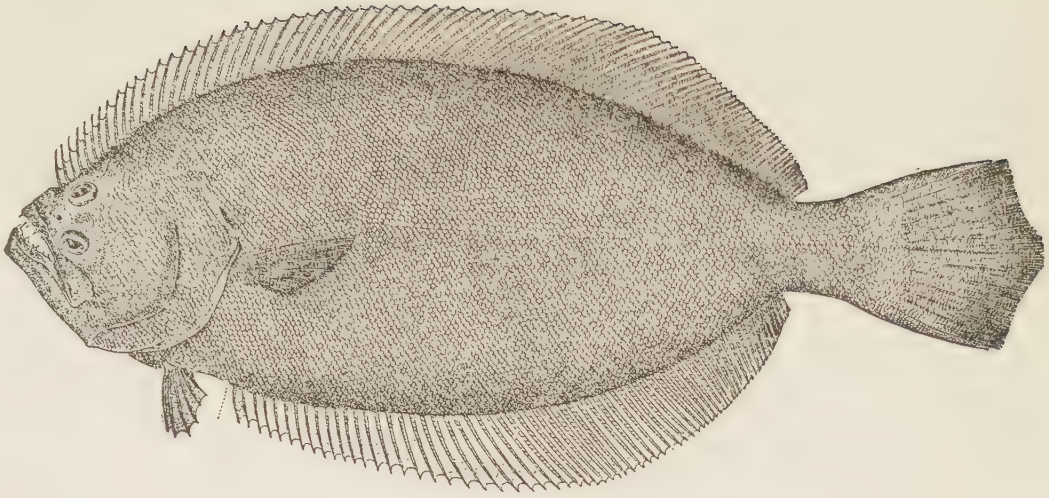
deeper cuts along the beach. While at times they are taken in the deeper waters, ordinarily the flats are the more favored spots, and it is safe to say that at least five fish are taken in such localities to one where the deep waters are. Unlike the striped bass and kingfish, the croaker is not an inshore feeder; that is, it does not range so close in along the beach, but is best taken at the extreme length of the cast; and the longer the cast the better the chance of success. Large baits are not essential as, when on the feed, they seem to cover every foot of the bottom and are easily attracted to the bait, no matter if only of medium size. They strike sharply and are off with a rush the instant they feel resistance and, as before remarked, are almost sure to hook if the hook is of the size described. There is no fish I am aware of which will give more determined resistance, weight considered. While they do not have the wild plunging antics of the bluefish, I do maintain, and the majority of anglers are agreed, that pound for pound, the croaker is the peer of the striped bass and, did he grow to equal size, would be as eagerly sought for. Taken on the same tackle, the kingfish is not its equal.

CHAPTER XXIV

PLAICE

OF the many important fishes which grace our waters, few are growing in popularity, both in the economic sense and in interest to the angler, with more speed than is the "plaice" or summer flounder.

While in the past it has occupied a more or less humble position in the estimation of the sportsman, yet, as the days go by and so many of our game fishes are growing less in point of numbers, many have turned their attention to this truly delicious fish; and when the proper tackle and system of taking are observed it becomes an object of endeavor quite worth while. We have indeed but few fish which are more universally used, and certainly none which are susceptible, under the direction of accomplished chefs, to greater counterfeiting. "Filet of sole," "chicken halibut" and many other titles on high sounding, richly embossed menus at fashionable "cafés" greet the eye of the unwary, and are relished and paid for by those who would scarce notice the humble base of these delicacies were they to be viewed on the fishmonger's slab. The flounder family is a large one embracing many distinct indi-



THE AMERICAN PLAICE OR TURBOT-FLOUNDER
Paralichthys Dentatus

viduals, the most important one being the subject of this sketch. It differs from all the other members of its kin by being strictly carnivorous. That is, where possible it subsists exclusively on the flesh of other fish. While it will at times take clams and other baits of like kind, still its strong bent is for the minnow or cut portions of fish.

This fish also is known in different localities by different names. Thus, on the eastern coast we have the names "brail" and "puckermouth"—why the latter is not understandable—around New York, "fluke" and "flounder"; while along the New Jersey coast and the waters farther south the name of "plaice" is in general use and seems to be suitable, as it distinguishes this species from all the rest of the family of flat fishes.

It is the most abundant of all the species, and is more universally used than any, with the possible exception of the "halibut." It is so very plentiful that at times the market fishermen say the bottom seems to be carpeted with them. Of course this applies where the favorite feeding grounds are, well out to sea.

Like several of our very important fishes, the plaice has no representative in European waters, but is known on the Pacific coast, as well as in Chinese and Japanese waters. With us it ranges from the Massachusetts coast to and along the entire Florida and Gulf coasts and down into South American waters. At all points it is highly esteemed as a food fish and is con-

tinually growing in importance to the angler. Not that it can be classed as a "game fish" in any sense; still it is so often present when all other varieties are not to be had, that it is continually on the angler's list as a possibility. It is a fish of most interesting habits and has many characteristics peculiarly its own; one of which is its method of concealing itself from the eye of its enemies as well as the prey it is seeking. Where the water is shallow and quite clear in our inlets it may be seen making a quick dart after some unwary minnow or other small fry, and it is most surprising how very rapid its movements are in its native element. With the swiftness of thought it leaves its lair, passes through the space calculated, and drops back to the sandy bottom where, with a fluttering motion of tail and fins, it conceals itself, leaving nothing but the eyes visible. I have frequently found them in not more than two feet of water, completely hidden in the sand, lying in wait for the luckless small fry to approach, and it is only with the most careful scrutiny that the eyes may be seen. A most amusing incident occurred some years since while on a trip down Barnegat Bay. Having need of bait, the skipper of the boat on which a party of us was enjoying a week's vacation, ran over to a small island where he thought the commodity might be obtained. Hailing a person who was idling on a little craft, our captain asked if he had any shedder crabs on hand. Receiving an affirmative reply he told him

to bring us a crate. What was our surprise, then, to see our new found friend, upon stepping from the boat into the water, which was not more than two feet in depth, turn a somersault, his head going completely under. No one could even conjecture the cause of the mishap, although one of our party said he must be diving for the crabs. On regaining his equilibrium, he explained in this way: "I jest stepped on a durned flounder that was layin' in a sand ridge, and he went out, taking the bottom of the bay with him! It's a way they have, an' it ain't the first time I've been ducked by 'em."

The incident is given to illustrate the agility of the fish and to confirm how completely they can burrow from sight in shallow water where the sandy bottom is suitable for their purpose.

Their habits of spawning have been a subject of much discussion. This would seem to be one of the easiest matters to decide, as I have taken in bait nets along our coast in the autumn many specimens which would not exceed one inch in length and were surely of the season's hatching; still the U. S. Fish Commission makes report that no small specimens have been seen by them. While this report was filed several years since, I am, however, unable to find any correction of the above statement in subsequent reports. There can be no error in claiming that the young are very plentiful all along the New Jersey coast, at least, as the

fish has the very distinguishing feature of having the jaw hinge from the left side of the head, which is so characteristic as to occasion its being called in some localities "left hand flounder." This is so pronounced that it cannot be mistaken for any other variety.

The "plaice" arrives along the coast usually in May when it at once enters the mouths of all rivers and bays where it spends the time until late in October, passing out into the ocean and hovering along shore until the last of the mullet and other food fish have gone. When the sea is calm it is a frequent sight to see them spring from the water in quest of the sand lant and mullet upon which they so greedily feed. They lie upon the bottom, and, as the schools of small fish pass over them like a stream of light they dart upward, the momentum carrying them well into the air. The idea, which is prevalent among some, that it is a sluggish fish is not sustained by the facts in the case.

While the gospel of light tackle is being preached by so many, and is being brought into almost universal use for all varieties of fish, there are but few varieties which will give better reward in this direction than the plaice. True they may be taken, and are taken, on all sorts of rigs; the fishing bank boats go out equipped with the heaviest of tackle, and hand lines are brought into play which, while they do take fish, give to the angler—"if such may be called anglers"—no just sense of the sport which is to be had from the employment of

the delicate rod and line. I do not wish to be understood as a critic of any one's right to use such tackle as he may elect, and the subject is written of rather as a reminder that, while it is not all of fishing to catch fish, the true soulfulness of the sport does lie in the use of light tackle, which gives the victim a chance to regain his liberty and puts the wielder of the rod on his mettle to cope with the situation.

As taken along our streams, the plaice run in weight from two to six pounds. While specimens weighing as much as twenty pounds have been taken in the nets, and on the rod at sea, still the weights, as first noted, are about the average. Thousands are taken along the beach during the summer and autumn months with the heavier surf tackle while plying for bass or bluefish, but the true pleasure of the sport is to be found in boatfishing. In all the waters opening into the sea are sand bars or reefs toward which the water always shallows, and these are easily found by the appearance of the water which is of a lighter color than in the deeper parts. The ebb tide is usually productive of the best results, as apparently the plaice lie in wait for the smaller fish as they are carried down by the outgoing tide. Having located the proper grounds the boat should be anchored on a line where the sand reef slopes off into the channel; then with a rod the same as would be used in bait casting for black bass, and a small free running reel, the game is getting well in hand. The hook should be

5-0 or 6-0 in size and either hollow point Limerick or Sproat, the former to be preferred. Just why this hook should be better adapted than other models for the taking of this fish is not easily explained. Certain it is, however, that it will almost invariably land the fish when other makes, notably the O'Shaughnessy, such a favorite with all anglers of experience in taking many varieties of fish, is almost a complete failure. I have stood at the side of men of long experience in this class of fishing and seen them lose fish after fish with the latter hook and, on making the change, at once secure nearly every one which struck the bait. This may be explained by the fact that the mouth of the plaice is different from all other varieties which are taken in this style. This hook should be tied to the long snell—four-ply—which, in turn, should be passed through one eye of a box swivel. Into the remaining eye of the swivel a four-ply leader, not more than one foot in length, should be looped. Attach the remaining end of the leader into one of the rings of a ringed sinker of about one ounce in weight, the line in the other. Thus we have a rig as follows: below, the line sinker; next, the short leader; then the swivel, and, at the bottom, the long snelled hook. The reason for the swivel between the leader and hook is obvious; in the current, which is sure to exist at all points as described, the bait will swirl round and round, thus unlaying and ruining the line, if not checked by the above arrangement.

And as to the bait; while this fish will take a great variety of such, still the only one which can be depended upon at all times is the salt water "green head" minnow. Though I may be criticized for using this term, yet I think it applies better than any other, as it is comprehensive. At this point, I trust a slight digression will be pardoned, as it relates to this very bait fish. Fred Mather, he of "blessed memory" who wrote to us so charmingly, both in humor and pathos, of fish and fish life, once said this fish should not be called a "minnow" in his presence except in whispers. As it only occurred in any quantity in New Jersey waters, whenever he was uncertain of the nationality of a man, he would gently lead him up to the subject of this small fish, and if the stranger said "killie fish" he was sure to be from New Jersey, as nowhere else is it known by that name. Be that as it may, "minnow" or "killie fish," it is the renowned bait for the subject of this chapter.

Having gauged the depth of the water, the float should be adjusted on the line so the bait will clear the bottom by at least one foot. The hook should be passed through the body of the fish just under the back of the dorsal fin, but not deep enough to touch the spinal column or it will instantly paralyze it and the livelier the bait the more certain the success. Then allow the rig to drift out with the tide; the boat in the location described will cause the lure to pass along

the edge of the sand bar near the channel just where the fish are to be found. No surer method of success than the one described has yet been developed for the taking of this fish, and to the man, tired with business problems, it offers a delightful recreation. From early in June until late in October these fish may be taken in this manner in all the tidal waters of New Jersey and the nearby states.

CHAPTER XXV

THE CODFISH

IN treating of the codfish it may not be said that it is in any sense a game fish, yet its history is so interesting and so full of importance to mankind that it might be remiss to omit a sketch of its character and habits.

It is doubtful if any one of the ocean tribes contributes more largely to the sustenance of man, and records of its taking are extant since the earliest times. The lapse of ages has not dimmed its popularity as a favorite food for the millions, despite the vast contributions by other and more accessible marine food.

The family of cods embraces many species but it is only with the well-known variety that we may properly deal here.

The range of this popular fish is perhaps greater than any other known variety. From the temperate zone northward, to and including the arctic circle in both the Atlantic and Pacific oceans, this fish is met with, and the colder the water the greater their apparent numbers. Unlike most fish their movements are mostly from deep water shoreward and then back in-

stead of ranging degrees of latitude. They move in immense schools, and the amount of food they consume is incalculable and of great variety; nothing smaller than themselves seems to be immune from their attacks. Herrings are consumed in multitudes, and the mollusks of the innumerable banks and reefs along which they trade are especially sought for. The great sea clams are swallowed entire, and, after digesting the meat, the shells are ejected from the stomach. This peculiarity does not belong to the cod alone; many fish have the same powers, notably the bluefish, which, having abstracted the desired elements from its food, ejects the remaining portion and sets about for another banquet.

The voracity of the codfish is unbounded and proverbial, as, when feeding, they will take almost any bait offered by the fisherman and take it promptly.

In many sections of its range the cod is held in most profound respect, as it has so constantly contributed to the food supply of the people when other sources of food were lacking. As it is susceptible to so many formulas in preparation for the table and so easily preserved, either by pickling or drying, it is, and has been for centuries, one of our most cherished fishes. Like all animate things the codfish has its enemies, but, while very voracious itself, it is never pugnacious and usually gives way to its more vicious enemies, the most pronounced of which is the "horned dogfish."

These brutes will, in short order, clear the waters of both cod and haddock, as they tear open the sides of the latter fish and scoop out great mouthfuls of flesh when they dart among them.

It is no unusual thing to see a trawl fisherman's line denuded of every fish with nothing but the skeleton and head left to tell the story of a cod having been hooked. When this happens the fisherman promptly shifts to another location as he knows the codfish will at once seek other feeding grounds.

While codfish are usually found at, or near, the bottom of the sea, they will promptly rise to the surface in pursuit of such food as may present itself there. The sand eel, or sand lant, is one of their more favorite foods and they pursue it relentlessly. The writer has many times seen acres of water filled with these small fish, huddled together in countless millions, with thousands of terns feeding on them, screaming in their nervous way as they struck from the air, while from below the cod and haddock gorged themselves to repletion without, apparently, reducing the numbers of the great horde of small fish. When these fish are at hand the codfish will follow them into very shallow waters and even close inshore.

About the year 1900 they were plentiful along the New Jersey coast the entire winter and fishermen took them in abundance from the fishing piers and other advantageous points. This has not occurred since, as

THE CODFISH
Gadus Morruha

the fish were led in by the enormous schools of sand eels that trade along the shore for many months.

As stated in the beginning of this chapter, the codfish is not classed as a game fish among salt water fishermen; but it is not to be despised, and, coming as it does when most other fish are not to be had, it is welcomed by many enthusiasts.

To most people this fish is associated with a "fishing banks" steamer with its motley crowd of passengers, all eager to catch fish, no matter what the manner so long as they "get 'em."

In such crowds the large wood reel plays a conspicuous part with its heavy braided line accompaniment and one pound sinker to keep the bait near the bottom, as the currents usually sweep along with good speed in such places; and these rigs do "catch fish," while the fishermen go home happy over their exploits.

As in most fishing, there are always the undesirable qualities to be met with, and there is no exception here. The little "cunner," or "bergall," as it is usually termed by fishermen, is ubiquitous on these grounds and plays its part with due celerity, usually stealing the bait in the most adroit manner possible and escaping the hook with the most exasperating regularity, so that when the fish is hooked the fisherman has about four ounces of "good-for-nothingness" at play on his heavy line.

To such as cannot, through environment or other uncontrollable cause, have access to other forms of fishing we would all encourage this sport. It is relaxation from care and affords a day in the open on the restless sea, which is good; and though it is not fishing as the term is understood, yet, with the reader's consent, we will go "codfishing."

It is cold, and of course we have provided heavy woolen gloves for the hands and woolen socks for the inside of the long rubber boots we are wearing. Long years ago we learned not to wear shoes when on a winter fishing trip at sea; there is too much moisture about for that. Over night we have provided a liberal supply of soft clams, opened and in a convenient pail. Menhaden is in a basket our friend carries; they, too, were attended to last night, a sharp knife being run along the backbone, and that, with the head and entrails removed, leaves the sides in large slabs ready to be cut into proper size baits.

The boatman's orders were to be at the beach by daylight and it is not quite that time yet, as here and there a star is to be seen, each moment growing dimmer. The air is brisk, making walking after a hearty breakfast a delight. It is just cold enough to cause us to turn down an ear tab of our heavy cap on the side the wind strikes us; it is just wholesomely cold with no heavy wind blowing.

Our boatman is at hand and genially greets us as

we place our tackle in the sea skiff we are to use, as this is to be no excursion boat trip.

He is a wholesome man, rotund and with iron gray locks. He has seen much of life and very much of the sea. He knows her moods well enough to be cautious in all he does, while he has supreme confidence in his ability to read her warnings in time to avert disaster.

"Mornin' gentlemen! It's time we're off," is his only greeting; and the skiff slides into the quiet surf, while the little propeller hums a requiem to the expiring waves splashing on the beach.

Over the bar we go; there is a little roll to the sea, but just enough to remind us of many trips we have taken when there was much more. We hold the tiller, while our boatman, standing erect in the bow, scans each foot of the water to see that the rapidly moving boat strikes no floating debris that might crush in the sides of the rather frail craft.

The sky is glowing in the east with refulgence of the rising sun and long shafts of red shoot up like genii's fingers directing the orb of day to her course in the zenith.

A flock of black ducks spring up from nowhere, hurtling away on rapidly beating wings, and are soon lost in the gray line of the horizon, while a little later two sprigtails flush up from the gently swelling sea and can be seen to dodge sharply when louder ex-

plosions than usual escape from the exhaust valve of the engine.

An hour of interesting incidents over the watery wastes passes. Much life, invisible from the beach, is being seen, each phase different, and each with distinctly marked characteristics of marine life.

The craftsman in the bow is looking keenly at high points on the land which are already presenting a lowering horizon, and his trained eye tells him we are nearing the apex of a triangle drawn from shore lines which, when reached, is a favorite ground for the quarry he is seeking. Finally his hand is thrown aloft as a signal, the power in the engine ceases with a faltering "putt, putt," and the little craft swings around with head to the gentle breeze that is blowing. It is winter but the air is exhilarating, not bitingly cold, and we seem to be but a trifling part of the universe when we consider our little eighteen foot boat on the waste of wintry waters.

The anchor is let go, and we find we have fifteen fathoms of water beneath us, just what we are seeking; a depth well known to many fishermen—"fifteen fathom bank." Then our tackle is made ready, the same as is used in surf fishing, the springy rod and 2-0 reel; but we have adopted the 7-0 hollow point Limerick hook, the best for this class of work as many years of experience have demonstrated. Other hooks

would doubtless take fish, but none may do it better than these, so they are put in use.

Four ounce bank leads are assembled near the leader to carry down the bait; they are long and pass through the water more readily than the more chunky kinds. The bait has been well drained, so it will not be wet to handle, and fishing begins. One of the party, however, does not use bait; he has had years of experience with many kinds of fish in many waters.

He is putting in use a metal squid painted a brilliant red. The old sea dog of the craft eyes it critically and, as it goes overboard, murmurs something that might be construed into "damphools" and lunatic asylums, but another man is talking at the same time, and perhaps we do not hear correctly; anyway the vermilion colored squid is on its way to the bottom, near where the baited hooks of the others repose.

The man with the squid begins twitching his rod, first to the right, then to the left, then straight up and down, only short jerks of perhaps a foot in extent but they keep the squid dancing. Only about a minute of this work, then the tip goes down completely under the water and the rod bends sharply. Something has connected with the metal squid away down there ninety feet from the surface and the bending rod gives proof that it is alive. Slowly, in wide circles, it is reeled toward the surface, while now and then line has to be given and the struggling fish goes down with a

rush near to the bottom, when it is reeled up again, and at last the gaff lands it in the boat. About eighteen pounds says the old boatman laconically and continues bait fishing.

Again the squid takes hold and another cod of eight pounds comes in. This continues until six fish are in the boat before one is taken on bait; then the sport becomes universal and each one is taking fish that have been attracted to the spot and are biting voraciously.

An occasional haddock is taken in the run and, as they come to the surface gleaming white, their large eyes appear to express regret at the irony of their fate.

When eleven o'clock has come, the little craft is loaded with about all that may well be beached, and we are soon "putt, putting" to land. We have killed no swift-finned game to-day, no *grande écaille* of the more southern waters; we have been among the more humble sort of fishes, these which furnish sustenance on millions of tables. They bite well and fight hard at the bottom on light tackle, and so we are content—and why not?

All hands are a little chilled but supremely happy, as we have a boatload of fish which the fisherman takes to the market; save two large ones that go home with the passenger, he of the red squid, to be carved into steaks.

The old boatman accepts the red squid as a pattern with the remark, "She worked prime to-day, but I do'know about her for stiddy company."

While baits of various kinds are used for taking codfish, it is to be doubted if any fish will take a trolling lure more readily.

The metal squid, such as is used for bluefish, is good, and when a school of fish is located it may be used with confidence in its results. The method employed is to permit it to run from the reel until it reaches the bottom, then reel in a few feet of line and twitch, or slightly jerk, the tip of the rod about so the squid is kept in motion near the bottom where these fish are usually to be met with.

The wait for results will not be long, and the sport is good if the fish run of good size, as they have a most persistent habit of playing toward the bottom when nearing the boat, which is always interesting to the fisherman.

It is to be regretted that these fish do not come inshore more frequently so that they might be taken from the many piers that reach well out into the ocean at so many points.

Should they do so it would afford fine sport during the winter months when other fish are scarce.

Most startling stories have been told concerning different articles that have been found in the stomachs of the cod. Discarded lamp burners, broken tableware

and pieces of broken brass machinery fittings, evidently all discards from passing vessels, plainly indicating that tney will seize upon any glittering thing that may be passing through the water.

Old-time observers assert they have seen them strike among a flock of ducks and have frequently taken their partially digested bodies from the stomachs of large specimens of cod.

Their fecundity is equally interesting, as well as amazing. They spawn along the stretches of reefs and banks of the northern waters and apparently at quite an early age, as fish of four pounds in weight have been taken heavy with spawn.

In determining the number of eggs a given fish may contain, the ova is carefully washed to remove all surplus material or substance. Then a small section is weighed on the most delicate of scales, and, the portion being placed under a powerful glass, the eggs may be accurately counted, when it is a simple matter of multiplication to compute the entire number of eggs.

Carefully prepared tables have been made and they show that well conditioned fish, of from twenty to twenty-five pounds, produce from two to three millions of eggs, while from very large examples as many as nine million eggs have been obtained.

Reason tells us that from such prodigious numbers great destruction must take place through the operations of winds and currents that carry the eggs into locali-

ties unsuitable to final maturity, as well as from the depredations of fish that feed upon them.

Prolific as they are, reports from competent observers assure us that this splendid fish is being rapidly decimated. In many places where they were formerly in the greatest abundance but few are now to be taken. Twenty-five years ago they were at times exceedingly abundant off the New Jersey coast, the waters teeming with them, as well as haddock, which associate much with the cod; and the description of the method of taking the one answers equally well for the other.

Later years, however, have not found them in their past abundance, no large schools being reported. The writer is well aware that most anglers hold this fish in more or less derision, as a fish beneath their endeavors, but a day with them, following the methods described, is not outside the pale of any honest fisherman's category. It gives a day on the open sea with its consequent appetite, which alone is well worth while, besides the sport of catching a cleanly handsome-appearing luxury for the table.

CHAPTER XXVI

THE BONITO

HERE we meet with the "ocean rover," the true corsair of the seas. While there are several species of this fish, this sketch applies only to the Atlantic family.

Yet, what may be said of this variety applies very closely to all the species as regards their general habits.

On considering their build, it at once becomes apparent that speed with them is paramount. Built like a well molded bullet with pointed head and with the most minute scales to offer the minimum of resistance to the water through which they speed, their passage may be likened to an arrow going through the air, and when at all visible from a boat their bodies resemble more the passing of some fleet shadow than an animate creature.

Even the dorsal fins have grooves into which they fold when not erect, and thus they meet with but little of the natural resistance from the water. Unlike their congeners, the bluefish, they never approach the shore so that they may be taken in surf fishing, but prefer to remain in the offshore reaches in pursuit of their

food which consists of the smaller tribes of fishes such as the menhaden, herring and what is known as the "raindrop," a small semitransparent fish which swarms at the surface of the sea, at times in incalculable numbers.

The sand lant, too, is a favorite food for these fish, and they pursue them without mercy when located.

They are at all times a timid fish and are sensitive to sounds about them, and when the ocean is calm and the water clear it is difficult to take them, as a motor boat, chugging through the water, will frequently cause them to disappear entirely.

It is only when the water is murky and a breeze is ruffling the surface that success is moderately certain.

That they are suspicious and calculating, to an extent, was well demonstrated one September morning when a large school of bonitos was located about seven miles from land during a perfect calm when the water was very clear, so that their movements could be plainly seen several feet below the surface. Knowing that trolling with the squid would avail us nothing, owing to the conditions, we decided on bait fishing, using cut up menhaden. As the bits of fish sank slowly through the water they might be seen plainly and, within the instant, they would disappear. This was most puzzling as there was no apparent agency to cause the illusion. The old boatman was chuckling over our discomfiture

THE BONITO
Sarda Mediterranea

until at length he explained the situation with, "Them's bonitos what's takin' your bait an' they are quicker'n your eye and, for that matter, anybody else's"; which, of a truth, proved to be the case as later on we were convinced. But how fish of three or four pounds each could pass through the water which was crystal clear with such speed that the eye could not detect them was an optical problem that I will leave for more scientific minds to elucidate.

Then came the dénouement. Being convinced that fish were all about us, we baited our hooks and cast them overboard, using the same size pieces that had formerly been thrown out without the hook. Anticipation was high, as each moment we were expecting to have a fish battling with us; but nothing came of the endeavor. Evidently the line which was plainly visible presented a different aspect to the anticipated quarry and the tidbits remained untasted. Here was strong evidence of instinct or reason, have it as we will; it was at least that subtle something that saved them for the time being.

An hour, possibly more, was wasted in the vain endeavor to have them take the bait; from time to time we could plainly see the fish close to the baited hook, examining the lure. They seemed to come from just nowhere in particular, remaining for a short period to curiously inspect the bait, and one of the most remarkable things would happen. When their inspection was

at an end they would slowly drop away, but not in the manner in which they approached; they swam backward as if suspicious that somewhere about was a trap for them, and their eyes were kept glued on the object until they were well away; then in a very short time another group would be at hand, and the same cautious procedure would be enacted. When at length a breeze sufficiently strong to ruffle the water arose they began biting and a good catch was had.

A favorite method of taking the bonito is by trolling a well polished block-tin squid of about three and one-half inches in length of the diamond pattern behind a motor boat driven at a moderate speed; and in this connection another of the peculiarities of this fish becomes evident. While most fish will strike at the lure better when it is well away from the boat, the bonito is much more certain to strike when close to the boat and directly in the ruffle of the propeller. This may be due to the fact that the bubbling water obscures the trolling line.

No matter in what fashion the bonito is fished for, it at all times enlists the best thoughts of the fisherman to effect its capture and is, when fresh, a most delectable table fish, very frequently sold as Spanish mackerel to the uninitiated. It will average in weight from two and a half pounds to four pounds and should never be confused with the Atlantic albecore, a fish of but low merit which grows to a much greater size, although

when these fish are of the same size they do resemble each other closely except in taste.

As before stated, the bonito rarely runs in along the beach so that it can be taken by the surf fisherman; it must be sought for with a boat and may be met with from a single mile to twenty miles at sea.

August and September are the best months of the year off the middle Atlantic coast for a quest of these sprightly rovers, and a rather stout rod with a 2-0 high quality reel in action.

With a boatman who understands the game and conditions right, keeping the boat in the teeth of the wind and going at a moderate speed, the sport is of a decidedly high order and is worthy of the most exacting angler's effort.

Like the bluefish, the flesh of the bonito is not particularly firm and if the sun is shining hot they should, on being taken, be placed at once in some position where they may be protected from the bright glare, as the flesh will deteriorate rapidly if not given this care.

For the man who has never had a bonito or bluefish strike his lure when the boat is moving rapidly through the water there is a real surprise in store on his first experience.

Like a bullet, the strike comes, and the man at the rod may well believe he has a fish of many pounds in weight to contend with. The fight is so rapid and

determined that he is at all times a very busy man until the quarry is boated, and he may become doubtful for a moment or so of his own conceptions when he sees the size of his fish.

There are many glories awaiting the man who plies the rod and reel, and many places to which he may journey and have his ambitions gratified, but there are few places that, for true exhilarating sport, can excel the broad ocean, with good companionship and equipment; and the bonito, in biting mood and of good size, will give him argument more conclusive and tactful than the most astute politician.

CHAPTER XXVII

THE EEL

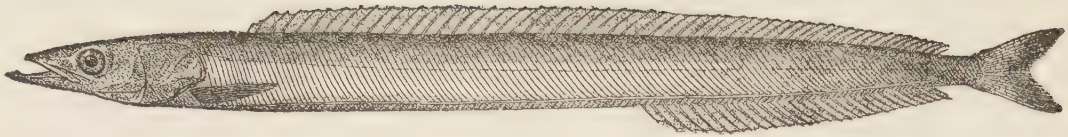
NO member of the tribes of either the salt or fresh waters of the earth has furnished more of conjecture and wonder regarding its natural history than has the eel.

To the angler for game fish the eel cannot be said to furnish a strong appeal. It is rather from the point of view of its economic worth and interesting habits that it appears at its best.

Regarding its form, there is but little need of either illustration or description, as nearly all who are at all familiar with fish life are acquainted with it and recognize it at a glance.

Excepting the lampreys and congers—which varieties are of but little importance to man—the varieties met with are so uniform in appearance and habit that to any, save those of technical training, but little difference in appearance will be noticed; and, after all is said that may be, it remains an open question whether the slight differences that may be noticed are not more a matter of environment than of genera or even species.

For ages the breeding habits of the common eel were



THE LANT OR SAND EEL
Ammodytes Americanus

entirely unknown, and there were as many theories over the matter as there were disputants. It seems now, however, a settled matter and well proven through scientific investigation that eels spawn only in the ocean and in great depths of water.

In lakes and pools that are completely landlocked there is never any increase in the numbers of the eel family except through artificial stocking.

Denial of this fact may be made, and with arguments that seem sound by men who have given careful thought to the subject. The main question in such a controversy is, when is a given body of water completely landlocked against these migrants? For of all the creatures of earth or water to accomplish the promptings of its nature the eel is one of the most persistent.

To reach its destination no avenue of approach or retreat is overlooked. Drain pipes from one locality to another are invaded and even water pipes from reservoirs to the home have frequently been clogged with the persistent creatures so that the supply of water has been completely shut off. These are usually found to be mature eels, undoubtedly following nature's promptings to reach their grounds to reproduce their kind, following for miles the dark underground passages until they eventually reach pipes too small to admit of further passage when, through their own energy as well as the water pressure behind them, they completely close the pipe.

If, then, the mature eels are so persistent in their endeavors to reach their spawning grounds, what shall be said of their progeny, the tiny elvers as they are known, that emerge from the ocean and make their ascent against tide and current to all accessible fresh waters? That they travel hundreds or even thousands of miles inland there is no reason to doubt, surmounting obstacles that would seem impossible in their journey.

Many years ago the writer witnessed the most wonderful sight of his life at a dam across the waters of the Manasquan River in New Jersey.

At that time there were several dams across the stream, giving power to flouring mills and sawmills along its course. The dam in question was the last one on the stream before it reached the sea and possibly fifteen miles inland. It was the Fourth of July, and a day of idling on the water had been some time in contemplation.

On reaching the dam, however, a matter of utmost interest presented itself. Being at a season of the year when the river was comparatively low, but little water was flowing over the dam, permitting a perfect view of the surroundings.

As is natural at such dams, the swiftly flowing waters at flood had worn out a tremendous pool, some fifteen feet in depth, in the alluvial meadow which lay below.

This entire pool was filled with a living mass of young eels, or elvers, of from three to four inches in length and of the diameter of a common knitting needle.

The writer has seen fish life in abundance and in tremendous schools from the waters of the Caribbean Sea to Canadian lakes and rivers, but never anywhere, at any time, in such numbers; and, with apparently one purpose in view, that of ascending the dam and pressing on to the creeks and ponds above, that vast horde of incalculable millions industriously labored. Wherever there was moisture to be found on masonry or timbers forming the dam, there were to be seen thousands of the midgets at a time moving upward by successive reaches of first the head and then the tail; a fraction of an inch at a time, until the summit was gained; or, by reason of faulty grip, the individual would drop to the water below, but no matter how many failures there might be, there was a continuous stream of successful ones passing over.

Almost the entire day was spent in contemplation of the wonderful sight, and when evening came the multitudes that had gone on had not, to any appreciable degree, lessened the numbers that still awaited their trial of faith.

If, then, such hordes of young eels ascend streams where dams and other obstructions bring them into plain view, what must be the numbers which pass

through the bays and reaches of water fed by fresh streams? And such multitudes are never seen by the eye of man.

To the angler the eel is not a fish to be much sought after. It will take any bait of fish, flesh or fowl and is sure to bite, once it comes within range, and is as sure to be hooked, no matter how small or how large the hook may be.

Bobbing for eels is a favorite pastime for both men and boys in many localities. This is done by stringing long lines of worms on linen thread; then doubling them about into a bunch and wrapping thread around the whole; then, after tying all to the end of a fishing pole, it is lowered to the bottom of the stream where eels are known to abound.

This bait they will attack savagely when, by a quick motion of the pole, they may be taken at almost every bite, as the thread gets caught in their fine teeth, and the victim is landed before it can release itself. This system is adopted always during the night, as that is the time when eels travel most freely.

To the angler, however, who is in quest of more gamy specimens the eel is regarded as a nuisance, as he is thoroughly energetic in all he does and, once hooked, he promptly ties the leader and line in an inextricable tangle and so calls down on his devoted head maledictions, voluble and sometimes profane.

Disagreeable as some of the traits of the eel may

be, still redeeming grace is found in the thousands of tons of choice food it supplies to mankind annually.

Like almost every other kind of food, there are several ways of preparing eels for the table, but undoubtedly the most delectable manner is to serve them fried.

Have your eels thoroughly cleaned and cut into sections of four inches each and drop them in boiling water, not permitting them to remain longer than three minutes, when they will be found to be perfectly tender through action of the boiling water; then, after dipping each portion in a well beaten egg, drop them into bacon fat that is smoking hot. As soon as the pieces begin to curl from the heat, sprinkle over a light coat of fine cornmeal and continue to fry until all is a deep golden brown, and there is a dish at hand as delicious in character as the most pampered epicure might desire, furnished by the sometimes despised eel which is so persistent in its endeavors to disseminate itself throughout our waters for the benefit of man, directed by the mysterious promptings of Mother Nature, whose ways we sometimes so little understand.

CHAPTER XXVIII

THE IMPORTANCE OF SOME UNIMPORTANT FISHES

IF, in the hurry and rush of this short life, we would give an occasional day, or even an hour, to consideration of the small things about us, we would find much to interest as well as instruct us in relation to their vast worth to the world in which we live.

How prone we are to gaze only at the vast mountain towering to the clouds, and bestow no thought on the humble ant hill upon which we may by chance be standing, and which may contain more of wonder in infinity of detail and constructive skill, worked out by its tiny, intelligent inhabitants, than may be found in an entire mountain range.

The ponderous elephant, as it goes crashing through the jungle or exhibiting its marvelous strength in performing labor directed by man, displays little of the master mind of the tiny honey bee, or the yet much smaller ant that we thoughtlessly crush beneath our feet.

There is no word of criticism here intended for either the mountain or elephant; both fill their places in nature as intended by the Divine Mind, and are important.

The observation is rather intended to direct thought to the equally important though much less noticeable things that hourly are within our view.

Neither should we censure ourselves too severely because of this. In this sordid world many people are too absorbed with the necessities of living to give much thought to the obscure, while others who have leisure and could, were they so inclined, enrich their minds and broaden their mental visions into fields of delight and wonder, through the investigation of natural laws embodied in plant and animal life, give no heed to anything beyond the butterflies of fashion and other human follies.

So we are prone to overlook the delights to be found in angling for the smaller and commoner varieties of fishes.

Let us then give more thought to what is to be had in almost every stream and estuary throughout our land.

There is a soulfulness and delight in visiting the extreme headwaters of rivers and bays, where currents of salt and fresh waters meet, and in taking with light tackle the many varieties of fish to be found at such places.

The writer for many years has enjoyed the close companionship of men who know the delights of taking the leaping, plunging tuna, as well as the *grande écaille*, the lordly tarpon, and on through the list

of striped bass, bluefish, and other varieties that put to the test the nerves of the fisherman, as well as the merits of tackle; who in the midst of it all take their days in boats on quiet stretches of inland waters, or will wander along the banks where such streams are shut in by dreamy woodland scenes and revel in the quiet delight to be found in such places.

Again currents meet—the currents of the soul of man lost in unconscious communion with nature's handiwork.

It is early autumn and all nature is in full fruition, and the fisherman, as he commits his delicate tackle to the waters, need ask no question if fish visit such places. Past experience, as well as intuition, tells him the story and he can see that higher tides than the one of to-day have left their mark on bank and shrubbery. He is no novice in the ways of fish.

That being true, he has not been negligent in the way of baits and has a variety in his fishing kit; so he begins his efforts, not knowing just what variety of fish he may meet with, but in that lack of knowledge lies sweet charm.

Uncertainty, that subtle mystery lying at the end of every fisherman's line, holds many thousands of men in its thralldom. Without it, angling's chief charm would vanish; so our friend is content to try, and, in the trying, loses himself to speculation on what may first come to his hook.

He is not expecting big fish; although, on more than one occasion at this identical spot, fish that were never landed had been hooked for a moment on his light tackle, and his reel had sung its song to the last foot of line which had parted close to the hook. Many times later when business cares pressed, the remembrance had caused him to drop for the nonce his problems and gaze abstractedly at nothing in particular, while his mind dwelt upon what particular variety of fish might have been wandering there, too large for his tackle to compass.

But to-day is another day, and it is not to be supposed that the incident will be repeated. Still, the uncertainty contains the charm, and his pipe contains good tobacco while the hot rays of the sun are shut away by the fleecy clouds overhead, aided by the foliage of the giant maple, whose twisted old trunk tells of many such seasons that have come and gone since it first took root there on the bank.

What a story the old tree might tell of tragedies enacted among its branches or at its foot by the folks of the air and meadow. And not tragedies alone; the love-making and brooding of many feathered folk have given many happy hours to its life, so the old tree does not repine as it casts an occasional highly colored leaf fluttering down to the boat of the man who is lost in contemplation of these things, forgetting the trouble locked up in his desk, so profoundly happy is he with it

all. He is expecting only small things to-day anyhow, and in the quiet grandeur of his surroundings he lays his pliant split bamboo across the bow of his boat not caring if nothing disturbs his bait for just a while until he imbibes more of the scenery which he has seen a score or more of times before, yet which is new again to-day.

The stream is not more than fifty feet wide at the spot where he is located and he knows that only abnormal tides reach much above that point as they surge in and out of the arm of the sea through the inlet miles below; and he knows full well how many of the lesser folk of the sea enjoy visiting such spots where they may be safe from their enemies as well as find abundance of food.

The air is very still; the fragrant tobacco smoke from his much used brier pipe curls about his head and then drifts slowly away toward a marsh that lies behind the meadows, and which he knows is the home of innumerable frogs and turtles. He is just daydreaming of the mighty frog chorus that might be heard there in the early spring months when evening was at hand and, heigho! something has found his bait, sending the delicate tip of his trout rod beneath the water. As he grasps and raises the rod sharply up, he realizes his game is hooked and he hugely enjoys the antics of the water sprite as it dashes here and there, always at the bottom.

Neither does it have to be a large fish to bend the light rod in all shapes; but, light as it is, that spring or bend is doing just the proper thing by keeping the hook set. No matter which way the quarry may dart the eternal pressure is there, and the fine line, no heavier than a sewing thread, is able to stand all the strain the rod can give. The man is wondering which one of the many kinds of fish that might put up such a fight the victim will prove to be; and, as all animated life tires at last, so with the fish; and when the landing net lays it in the boat the man finds it to be a fish much the shape of a common sunfish, but of perhaps three quarters of a pound in weight. Its bronze and blue sides throw off a beautiful sheen of color as the man places it in the locker of his boat. "Sand porgy," he says aloud. "Well, I wonder if there are more of them down there. I hope so; they taste as well as they fight," and he mentally wonders just why this species of fish will leave the myriads of millions of its progenitors far out to sea and seek such places at this particular season of the year. There is but one answer: protection from larger fish, as well as convenient food. With this mental observation, another bait goes down and another fish is quickly hooked.

There's a school of the sprightly little "scup," as the offshore fishermen call the mature fish, feeding here and a round dozen are soon taken.

There are other visitants to that quiet spot this

day. Lafayettes, or spots as they are generally termed, are occasionally brought up, beautiful silvery fellows with the ever present black spot close to the pectoral fin; not quite so large as the porgies but every whit as ready biters and sturdy fighters.

Then noon comes; the man pulls his boat to the near-by bank and regales himself with luncheon and after that his pipe as he lolls at full length on the sod beneath the old maple.

Many times he has visited the spot at this season of the year and as often has success been his. Usually he has a companion, but to-day he wants to be alone and ponder over his difficulties.

Suddenly he sits bolt upright; the matter of his worry is no longer existent. What has promised to be a heavy loss to him has been secured by a bond of indemnity given at the time of the business transaction, and has been filed away by himself as a thing not necessary, but upon which his attorney has insisted. This fact has entirely escaped his memory until this moment.

Blowing a cloud of smoke away he mentally observes, so much for a day in the open where God's sunshine sweeps away the cobwebs of mental distraction; and he again stretches himself on the grass and is soon asleep, his mind freed from the fret of several days past.

A chipmunk comes close to where he lies and, perch-

ing himself on a nearby root, eyes the prostrate form with eager curiosity, possibly regarding it as some modern Gulliver awaiting Lilliputian cords to bind it securely in its position.

After more than an hour has passed the man awakes, and again prepares for fishing. He already has ample fish for his own needs but there were friends to whom some would be welcome. Besides, what man ever felt other than that "just one more was needed," especially when his line was cast in pleasant places? He has shedder crabs in his basket, and he slowly prepares one as he sits on the grass, carefully cutting it in suitable bits for the small hooks he is using.

There is wisdom in this act, as the man well knows there is a probability of fish being there to whom the clam bait he has been using does not appeal; besides, there are but few if any fish, either fresh or salt water, that will not take the shedder crab bait.

With this knowledge in view, he begins his afternoon endeavors. While there is but little difference noticeable in the tide, still his line, with the light sinker he is using, keeps drifting down and he knows the tide is running ebb, which is favorable as the fish will drop into the deep pools and eddies in which he is fishing, and thus his chances will be bettered.

There is but a short period of inactivity; soon his rod tip goes completely under and, as he hooks the fish, his line cuts the water in circles all about the boat.

There is not sufficient resiliency to his rod to start the fish from the bottom, but the man knows that fish tire eventually and he bides his time until the unceasing strain, slight though it may be, will conquer the determined fish fighting so valiantly for freedom. When complete exhaustion comes, there is brought to his net a kingfish of perhaps one and a half pounds in weight.

Here is a specimen new to the fisherman in such far inland waters, and he is pleased to add to his knowledge the fact that these fish are not averse to paying visits where currents meet, far from their ocean haunts. He has come for unimportant fishes and has succeeded in taking a very important specimen, usually found along the beach or directly in the mouths of large streams; and he makes a mental note never again to question the assertions of men of veracity regarding the erratic movements of fish.

This much prized fish, when offered a bait of which it is particularly fond, is quickly located in waters which few would deem likely to contain such species.

And so the afternoon wears away, fish after fish being taken; none of them of the larger varieties, it is true, but all of them important, vastly important, as each one gives a thrill of delight to the man engaged in their pursuit; and after all is said, no fish may do more than thrill the angler.

Any man who cannot, when he has found the quiet nook at headwaters of an arm of the sea, with lightest

of tackle find soulfulness and joy in taking therefrom the many varieties of fish to be met with in such places lacks something of the elements of the better man, and should have supplications offered in his behalf before the throne of nature's God.

CHAPTER XXIX

CHARACTERISTICS OF SOME ANGLERS

IF poetry is lavish of roses as has so often been said of it, then fishing may well be termed the gallery of character, as but few of the propensities of man have within themselves the power of delineating personal character as has this ever increasing pastime.

Some moralist once said he never knew an ardent fisherman who was thoroughly bad. He might have added, nor one but was a nature lover of some degree.

This propensity then, whence does it arise? Surely it is not hereditary unless we accept the theory of "lapses of generations," like the deft weaving of some fabric whose cunningly directed shuttle passes many parts of the pattern to insert at last the brilliant thread which will shine forth at the proper time to make perfect the originator's design.

For certain it is that cases are but few where an enthusiastic fishing father finds in his son ardor equaling his own. And so it is through the various phases of life; the skilled mechanic begets a blundering tradesman or worse, while the Napoleon of high finance sires a progeny of incompetents whose chief merits

consist of spending the products of their progenitor's genius.

But, like the shuttle which misses many intervening threads to fashion at last a perfect pattern, so a later generation of sons may pick up the missed threads of life, the proficient mechanic blossom forth again, and a youthful genius of finance write his name high on the walls of fame. It is Nature's way; and who of us may gainsay her or suggest a wiser plan?

Among animals, however, direct heredity is more pronounced, each generation of species following closely the lines of its progenitor. Although it must be admitted that certain individuals do sometimes show flashes of superior intelligence, still, the general trend is in one direction, the exception proving the rule.

All of which, possibly, gets us nowhere. Why should we care whether a man's father was either poet or peasant? It is the individual himself who interests us; the man with whom we rub elbows and divide our tent at night, as well as the contents of our frying pan. Is he congenial? Does he pick up the threads of duty about camp and do his share of work? Can he anticipate the little things that go to make for comforts on a fishing trip and have them to hand in the hour of need? And is he a fisherman, one to whom zest is paramount, who will fish whether they bite or not; and when the trip is ended, if it has not been as successful as you had hoped for, will take your hand

at parting and smilingly say, "We had a bang-up time anyway; better luck next time"? If you have such a companion, stick to him; his price is far above rubies.

The Practical Joker

Here is a pest which, like the ubiquitous housefly, needs swatting on every possible occasion. He is not only a menace to safety, but is a positive discomfort to have around. Usually, he takes himself seriously and delights in imposing his idiocy on all about him, and, the more annoying and embarrassing his proposition, the more delight he takes in exploiting it. So many serious, not to say fatal, outgrowths of this malady have occurred that the "practical joker" should be religiously avoided. He is a derelict on the sea of decency and like all derelicts should be scuttled.

The Careless Man

This is a character of quite different mold, and very prevalent. He may be quite harmless and, under different dispensation, be a really good fellow, but he is never in order; something is continually out of "whack." He may possess good equipment, but with it are always to be seen evidences of lack of care. His reel squeaks when he makes his first cast, and his comment that he forgot to oil it is unnecessary; his reel spoke first.

You will notice that his rod has a most decided bend,

the result of standing it in a corner on coming in from his last trip; he tells you he did intend to hang it up, but forgot it.

If you take a peep into his tackle book you will see that most of his hooks are rusty, although many of them have never been used; the result of throwing a wet hook among them. A moment's time, when last through fishing, wiping the hook dry and rubbing it over with an oiled rag and those hooks would now be nice and bright. Again, if fishing on the beach he borrows your fish knife to cut his hook from the maw of a skate which, true to character, has swallowed the outfit to the limit of its body. Presently you want your knife, and then there is need of a search warrant. Tackle kit as well as his pockets are ransacked without avail. Finally it is kicked out of the sand under which it was buried through action of his feet where he had dropped it. He had intended handing it back, but he didn't.

Around the camp it is the same; you need the hatchet to drive a nail and search high and low for it. You know it was at hand in the morning as you had used it. Later you recall he had used it when you came in from the trip to get kindling with, and you find it among the chips at the wood pile. That hatchet would make an admirable tomahawk but, as the government no longer pays bounties on Indian scalps, you forego the inclination. When any of the table cutlery

is missing experience has taught you to at once repair to where he dumped the last installment of dishwater. They are there, of course; a trifle rusty, maybe, or else coated with cold grease, but they are not lost, thank heaven; and by dint of a little elbow grease can again be made presentable.

Just why the truly careless man never deposits any of his own, or borrowed, utensils where they may be easily discovered is a profound mystery. If inside the tent or camp he will contrive to cover the desired article with an old rag or other substance beneath which no one thinks of looking until you have enjoyed an hour's sport at hide and seek.

Perhaps your camp is pitched by a lakeside and you use a canoe. The hour is at hand when you feel that results from fishing should be good, and you are comfortably seated and nicely balanced. He is a heavy man and it is essential that he keep precisely in the center. Canoes are ticklish things and very promptly resent any interference with their ideas of balance. You are generous and are doing the paddling, and of course your back is turned toward your friend. Perhaps two hundred yards from shore, he sees, or thinks he does, some object on the bottom of the canoe that needs his attention, and he promptly reaches out for it. It is too far away for him to reach without leaving his seat, which he does. Securing the object, which is nothing more than some discarded trifle of no value,

he at once resumes his seat; but not exactly in the same spot as at first. He, being a careless man, could not be expected to do that, so he hits the side of the canoe with a bump and, since he is a heavy man, "over she goes," and you suddenly find yourself standing on your head in about twenty feet of water.

Of course you yell; but why do that? He, being the heavier, has hit the water first and his head is already under so he can't hear you. You both can swim; he knows that, and a mere wetting down doesn't matter so much! He didn't intend doing it, anyway; but that fact does not cheer you much as you stand on the bank with the water dripping out of your pistol pocket, and your nice new suit of "duxback," of which you were so justly proud, now hangs on you and in spots sets up like a porous plaster. The water in the lake was cold and exceedingly wet so you forgather in the camp, don dry clothing and arrange for fishing to-morrow, if nothing happens.

The foregoing are a few, just a few, of the careless man's accomplishments. Should there be more than just you two in the party, then, as a consequence, there will be more incidents, more things for him to mess up and lose.

But he is warm-hearted and generous and of course would not have done it for the world; but we notice, although he is in a way forgiven, the next time you go fishing with him he "stays home."

The Fastidious Man

We now come to a species of the "genus homo" who needs no introduction, but does need care, lest some condign thing happen to disturb the even tenor of his "sway." He goes into camp with you quite immaculate; his fishing suit is of the latest type and is a perfect fit; you look on and wonder how he secures things that look so well. That he is "fastidious" is the reason, and the salesman who fitted him out had a bad hour doing it. But he got what he wanted; and why not? The salesman was paid by his employers to make sales. Right here the query arises: Do we give proper consideration to the wonderful poise in nature? Now, from that particular pile of clothing many fastidious men had to be fitted out; eventually the pile is lowered and very particular men can no longer find desirable outfits. But along comes a man who is not so finicky; he quite easily finds that which "will do." Of course he won't accept anything that will make him appear ridiculous; he simply wants that which is good, buys it and is gone.

It may bag a little, here and there, but, no matter.

Finally that particular lot is worked down to a single suit; it has been handled many times and as often rejected. At last, in comes a fellow who is in a hurry; no, he won't try it on; he holds it up to himself, decides it will do, pays for it and hurries on. He is one of

the sort who care but little for the fitness of things so long as they are comfortable; and so we thank the powers that be that there is a man for every suit, and, incidentally, a suit for every man.

And now back to our fastidious friend! He cannot be termed a "grouch," he is too much of a "gentleman" for that; he only wants to look "nice" under all circumstances. He shaves every morning and would do so if some one was dying. Around the camp he usually selects such work as will not soil him much; should he get a real good smudge of soot from pot or kettle it would be real painful to him.

He has one redeeming feature, however; his tackle is kept as immaculate as himself and that counts for something. He handles his bait as gingerly as a lady might and always wipes his hands carefully on his ever present towel before making his cast. Should a particle of bait or other débris, such as is apt to be where fishermen are, lodge on his clothing, he flicks it off with his finger and then carefully wipes the spot with his towel.

"Nicety" is his watchword, and he never deviates. He is usually late in catching the point of a joke and is never known to laugh heartily. Such a man can never be a boon companion, and he more frequently fishes alone than with "good fellows." He is never coarse or offensive in any way, but his prim ways get on your nerves and you wish he might fall overboard,

or something would happen to take the starch out of him.

The Cheerful Idiot

We've all met him and hobnobbed with him, and if a vote of the fraternity were taken, no man could accurately guess in advance what the verdict would be, whether to his favor or discredit.

If the camping party consists of several persons this species is sure to be one of the number. Somehow he gets in and stays to the end. Like certain other sins, you may associate with him for a long time and size him up and down, but, for the life of you, you cannot determine whether he is something sent as a warning, and consequently to be avoided, or something to be embraced occasionally as a stimulant to good cheer and quite harmless if not indulged too far. For we must all admit his cheery ways, he never packs a grouch, and is ever willing to do his share of work when it is laid out for him. Of course it is understood that part of it will have to be done over after him, and that he never gets all the things he is sent for; but the redeeming quality is, he is perfectly willing to go back and get the missing articles, without a kick, although he frequently drops something on his second trip.

One habit this "genus" has without fail; he is first man up in the morning and, rummaging about, suc-

ceeds in upsetting everything, making more noise than a corn sheller, generally managing to get one of your socks on. It doesn't match, but he is indifferent to that fact until his attention is called to it, by which time he has been down to the creek and has succeeded in getting it nice and wet, and so you pass the day with mismatched socks—one white, one gray—and the only consolation you get is that he looks just as funny as you do, anyhow.

In the early morning hour, after his thumping around has aroused the entire crowd and all hands are dressing to have a "go" at the pools before breakfast, you discover the episode of the "missing sock," and you also notice that your rod, which you had assembled the evening previous, is gone. You had attached your pet six-foot leader, to which two of your choicest early morning flies were appended.

Our friend had put his rod together, too, overnight and had hung it on the three nails just under yours, so, in taking down his rod, he had reached a peg too high and secured yours.

About the time all this is firmly fixed in your mind, a choice expletive from "Bill" over in the corner apprises all hands of the fact that the "cheerful one" has commandeered his canvas hat and left his own corduroy cap in its stead.

A quick council of war is held and you and "Bill" hurry out to the creek, vowing vengeance. Your

quarry is nowhere in sight and you cannot for the life of you tell whether he has gone upstream or downstream, so, to determine the matter, you separate and begin the search. Soon a call from "Bill" informs you he has located the game and you reach them in time to see the "cheerful one" far out on the limb of an overhanging gum tree trying to disentangle your leader from its branches.

Words are useless, as you are met with a good-natured grin and a very positive assurance that he never noticed it was your tackle until he began casting with it, and he thought he would be back to camp by the time you were up, anyhow.

The probabilities are he is lying very glibly, but you can't prove it; so you let it go at that and finally recover your tackle with only one fly missing. You replace that and start downstream, while the disturber of your peace of mind goes upstream whistling loudly and splashing audibly.

At the appointed hour, he meets you at the camp; you have had but two rises, and but one medium size trout is in your creel, while the whistling, splashing one has six beauties swinging ignominiously from a twig cut from an adjacent alder, and he cheerfully assures you that splashing upstream always "wakes 'em up."

Breakfast has already been prepared. Our hero, swinging off his fishing coat, contrives in some man-

ner to hook the handle of the coffee pot, throwing that indispensable article with its boiling contents to the floor, spattering everybody, and so, all hands are compelled to wait until another pot is made ready and the eggs and bacon have become cold.

However, after all is said in relation to this species, none may pronounce dire sentence of extinction, or even complete suppression of him, as we all have within us some trait of character which emphasizes his depravity; and let it be hoped that we all embody his many virtues.

The Lazy Man

Scientists tell us there is no character lazy from choice; that all are equally energetic under like conditions; that he whom we are pleased to term a "lazy man" is the victim of a malevolent germ lurking in his body, over which he has no control; and also, that his "indolence" is, as a matter of fact, painful to him. This "bug," it would appear, clogs up his system and, with malice aforethought, compels its victim to seek the easy chair and the nice shady spots, while the less afflicted ones gleefully toil on, taking their places promptly where activity is required.

If this be true, then pity is to be extended to the sufferer; and the natural inclination to crack him over the head with a billet of wood must be foregone as

he, on every occasion, seats himself at the farthest point from the oars when rowing is to be done.

This pestilent germ is particularly active and induces a severe attack when wood is to be chopped, or water for the camp is to be provided, but is ordinarily quite dormant when meals are ready and the chores about camp are completed—by others.

That there is no effectual cure for what has for ages been known as "laziness" is generally believed, although it has been remarked that a "second wife" has been known to hurry it some.

If the germ theory is accepted, let us then, by some means, search out its location in the system and, with some contrivance, proceed to render the patient immune, the numbers of which are, to say the least, most startling, and their sufferings must be great.

He Who Knows It All

Have you met him? Of course you have; and so have we! He is incessantly buzzing into your ears information concerning how infernally wise he is in relation to all things on earth as well as in the waters thereof. Of course, he doesn't say so in those exact words, but you cannot mistake his meaning if you tried to; neither can you miss him very frequently, much as you would like to.

He is as full of arguments as a "jack rabbit" is of jumps, and like an electric battery possesses both a

positive and negative side either of which he is ready to bring into play against you, as the case may be, and like the battery, needs only a connecting wire to set off the fireworks.

Condensed, his arguments are big "I," little "U" and the rest of creation just zero. He is as pleasant to have on hand as a sore thumb, with the vote in favor of the thumb; you can wrap a rag around the sore member, put it in a stall and keep it there; but you can't keep our ubiquitous friend anywhere. He luxuriates in advice and the abomination of it all is he offers it free; if there were charges attached you could refuse to buy and so rid yourself of the pest.

Your rods are never of just the right caliber, nor of the right material, and the maker wrong in the matter of construction and balance. He will tell you to a nicety just why the line you are using is a miserable failure compared with the one he knows of, until you almost wonder how you overlooked the fact. Should you have a penchant for downstream fishing, he has on tap fifty-seven varieties of reasons why wading upstream is the only proper procedure, and you are really in a fog as to why your system of working a stream has ever yielded you a fish anyhow. And so you are judicially picked apart from the hobnails in your waders to the peak of your fishing cap.

All this, as stated, is free to you and costs nothing save a sinful wrath within your soul, and you wonder

why some indignant disciple of the immortal Walton had not long since murdered him. But on reflection you recall how contrary to all the accepted ways of men his whole system seems, and that, in all probability, had some one done so his body would have floated upstream and so contaminated some unoffending neighborhood, and so you dismiss the painful subject from your mind.

But if "know it all" is a pest to the stream fisherman, to the surf angler he is more than that. Here his endeavors to disjoint all your well accepted principles are pathetic. If your belief is in fishing up near a flat he has argument to show why that is not what he calls logical. Your system of putting on bait is all wrong according to his ideas, and he has a very much better way which he tells you, while your casting sinker is not in line with the proven form in the least.

Should you be using a particular kind of bait, his views are that at that exact time of day—or night, as the case may be—there is something much better, and he tells you why he thinks so.

If he occasionally agrees with you on any subject, he will probably stop short, as if to argue with himself why he does it; and if at last you jump on him, metaphorically speaking, and tell him just what you think of him and all his theories, in all probability he will endeavor to charge it all against Divinity by look-

ing you blandly in the eye and complacently remarking that he is just as the Almighty made him anyhow. To which, if you have the spunk you should have, you will reply that you don't so regard him; you consider him a blank sight worse.

The Enthusiastic Man

We have here a twig on the tree of life which we are prone to examine well on all sides before final adoption.

Adjectively he is vivacious, persistent, pugnacious and, at times, a trifle obnoxious; but in the main he means well, albeit he frequently aims too high for his shots to be effective.

He possesses to a high degree the peculiar faculty of remembering only his successes and happily permits his numerous failures to remain a blank on memory's tablet.

His most obnoxious trait is going fishing about two weeks earlier than fish have ever been known to bite in that particular latitude, and you can't turn a street corner without finding his thumb in a buttonhole of your overcoat and being apprised of the folly on your part to hold remembrances of past failures at that particular season of the year.

Should he be so unfortunate as to miss you on the street or in your office, the telephone will summon you from your warm bed just after you have become

nice and comfortable for the night; and while you stand shivering in your nighties you will be compelled to listen to a long dissertation on what the fellows are doing in such and such a place, which scene is usually laid in a latitude much warmer than your own, or perhaps the happy idea may come to him to read the entire newspaper or magazine article to you that had enthused him, while gooseflesh as big as warts covers your entire body. Of course you are breaking the third commandment under your belt, but audibly you are giving him courteous replies, as you recall the little favor down at the bank when his name had helped so materially in securing the needful; besides, it may be necessary to renew that matter in whole or part, and so you are transformed into a human icicle through enthusiasm and finance. Should you by chance be away on a business trip, by some means he will get your address and will mail you clippings accompanied by a letter pleading, like a fevered evangelist, that *now* is the accepted time or that all is forever lost.

And should his early endeavors prove fruitless—which of course they do—the regret he shows is to go again the next day under the same discouraging conditions.

Of every bug, fly or creeping thing, he has the representation done in silk in his motley collection of tackle. Or if, by chance, he spies one in life that he

has missed at the tackle dealer's, he will catch it and try to make one like it himself; and then gloat to you over its possibilities as a fish lure.

While your true enthusiast, of course, rejoices in taking the aristocrat of the finny tribes, nevertheless, when these are denied to him he will bubble over with the glories of his conquest of the humbler species. Herein lies his chief charm which stamps him as a true fisherman and makes life, while in his company, at least endurable.

Like great artists and musicians, your real enthusiast is born with the talent, or habit—have it as you will—and he can no more forego the practice of his impulses than a mule can help having long ears, and like a baby, with its first crop of measles, he is in no sense responsible for his affliction.

Also, like the weather, there are many degrees of temperature to be met with in this analysis, but perhaps two distinct types are sufficient for definition: one is the bubbly type, the ardent fellow just discussed, and the other, the one who goes about his pastime in a subdued manner, giving thought to weather conditions and water temperatures, endeavoring to profit by his past experiences.

He loves the sport equally as well as the effervescent man and drinks in the joys of life as he passes through woodland and meadow in quiet contemplation of the glories all about him. When he returns to his home

he has many pleasant things to relate and does not feel compelled to stand on only one foot in doing it.

He is orderly in all his ways, and his equipment is stamped with the same trademark. While he is possessed of about one tenth the amount of paraphernalia of the "bubbler," what he has is at least twice as effective, and the condition in which it is kept tells the story of its practicability.

He is wise in the moods of the finny tribes as the winds and waters direct them and he fits so snugly into the niche that his trips are usually successful. His enthusiasm as a fisherman has taught him much, and his reserved and orderly way brings joy to himself as well as safety to his friends, as he never permits his fountain of knowledge to erupt and deluge all within sight. Hence he is beloved of men and honored of the fishes that he lures to their fate, in contradistinction to the volatile type who compels your desire to sit on the safety valve of his energy and so smother him with his own emotions.

CHAPTER XXX

BRINGING HOME THE BACON

SOME philosopher once wrote a diatribe on the "perversity" of inanimate things. In its way it was a classic and, could it be resurrected from its present obscurity, should be copied and pasted in the hat of every son of Adam who goes fishing.

While it tells of nothing new, it does bring clearly to view the innumerable things that have been met with by every observant person who naturally was forced to wonder as to the why and wherefore of various happenings.

Not that perversity is confined entirely to the inanimate; genus homo himself is so surcharged with it that at times it becomes an excrescence on his anatomy. But just why the latent devil has ensconced itself in so many useful and humble things is somewhat obscure.

If there is any doubt on the subject one example should suffice for the whole; just drop your choice piece of buttered toast and you need not look even to know which side lies next to the floor. All of which, however, is not pertinent to the text, but is introductory to the bacon.

Incongruity in equipment is a frequent occurrence among men of otherwise sane propensities, and in no class is it more noticeable than with the salt water angler. Either he will equip himself with a reel so small as to be entirely out of balance with the rod he wields, or his rod will be a diminutive affair not capable of delivering a proper cast from the heavy reel and line attached; but somehow he manages to get his bait into the water. In all likelihood, that bait is far from being orthodox in character, in the opinions of those about him who have held to the generally accepted proper selection of tackle and lure, and who have half pityingly observed where his cast lies as it is tumbled about by the surf almost at his feet, which pity is turned to surprise and wonder when they see the nondescript rig doing battle with a prize specimen of the deep. Either the little reel with its ponderous rod is undergoing a burden its makers never designed it to bear, or, if it be the diminutive rod, then it is groaning in agony as it bends and springs about performing, as best it may, a labor far greater than its just share, until finally, by hook and by crook, the trophy is landed. Luck? Not a bit of it. Perversity is playing its part just to show how high and mightily it can raise its head midst all that jumble of incongruities and so disillusion the erstwhile practical ones, and, incidentally, bring home the bacon.

How well the writer recalls the day in April of

years long ago. It was a day that fairly whispered of trout; a slight rain the day before; just enough to roil the water, with atmosphere dark and lowering, and a fifteen mile drive before daybreak to a stream noted for its amplitude of trout.

For companions an "M.D." whose enthusiasm lacked nothing and a judge who had been known to be mighty lenient with a prisoner before him if he knew the victim of circumstances was possessed of knowledge concerning trout that might be of advantage to his honor later on.

Nothing that day was lacking in the way of refined equipment, pliant bamboo rods fresh from their silk lined cases, while leaders of gossamer were attached to silk lines of spiderweb weight, and flies, the most alluring that art might produce, were plentiful.

The trio were fitted out with modern wading boots of the day, while the very slightly swollen stream could only be worked downstream to be consistent with accepted ideas.

For more than two miles down that charmed creek the enthusiasts waded, or made their casts from the banks to reach some promising point more effectually, each in turn taking his stand just in advance of the others until every projecting sod, bush or log had been worked over, while the pools had been faithfully flecked with the alluring flies, without a single rise from the depths to reward the patient endeavor. Then a last

resort to the humble barnyard hackle—the common worm—of boyhood hopes and triumphs produced just two trout from the next half mile of water; and those two, with a trifle of elasticity of the imagination, were confirmed as of legal size and they were creeled.

At this point luncheon was in order and, while that and their luck was being discussed, a commotion in the stream such as might be made by a vagrant cow attracted their attention from a point just beyond a sharp bend in the creek. Then a trout of noble proportions seemed to spring high into the air, landing with a thwack on the bank of the creek.

Following the aërial flight a man sloshed to where the victim lay flopping which he at once proceeded to unhook and string on a loop of wire attached to the back of his suspenders.

"How'dy, men," was the salutation he gave, and a yokel, in all that the term implies, came to where the three were seated. Heavy cowhide boots, a pair of tattered overalls, a washed-out shirt and a broken derby hat through the crown of which a shock of yellow hair protruded, while a space in his mouth that had once known front teeth was the most prominent feature of his face; age, anywhere from twenty-five to forty years; and you have his picture.

A black alder sprout some seven feet long, so crooked that it ached, to which a heavy cotton line was tied, while a nail fastened by its head to the line helped in

getting the bait down as he switched it from side to side of the stream where prospects seemed best for a victim; a ringed hook from which dangled a long earthworm, and you have his equipment.

"Seems 'ough yistiday's rain set 'em to bitin' like all tarnation," he drawled, and then the sight of the wire at his back made three pairs of eyes bulge like those of a frog ready to spring at a bug.

The trout were all of legal size and a few were good half-pounders and, after considerable dickering, three good American dollars from the "M.D.'s" pocket took the twenty-five fish.

For fully an hour three expensive outfits lay in idleness on the grass while their owners cussed and discussed the situation, and, were it not for the fact that the good doctor has long since gone to his reward, this tale would not have been ventured. And so we will leave the reader to answer, if he can, what it was that so whetted the appetites of those trout for a floundering yokel, a crooked alder pole and a bit of heavy chalk line, if it was not perversity determined on sending home the bacon.

CHAPTER XXXI

THE ANNOYING DROSS OF THE SEA

AS the history of the taking and refining of the precious metals would be quite incomplete without more or less description of the grosser materials with which they are surrounded and associated and which greatly add to the labors and perplexities of the individuals engaged in such pursuits, so a review of surf fishing would lack a fitting finale without mentioning somewhat in detail what may properly be termed the "dross of the sea," together with something of the annoyances given the angler through their activities.

Pests they undoubtedly are in the main, and the angler is frequently justified in treating them roughly and a choice expletive may be pardoned occasionally when he finds his tackle almost inextricably tangled in the maze of legs and claws of the giant sea spider, or in the loose running machinery of the horsefoot or king crab.

The angler will, in all probability, meet most frequently with the "calico" or spotted crab. It is an ubiquitous creature of medium size and has an enor-

mous appetite. It never seems to sleep, nor to be off duty, and is ever alert to seize the bait and burrow in the sand with it, no matter when or where it may be cast. Tides work no influence on him, except perhaps to sharpen his appetite for their next change. No matter what the nature of the bait may be he will eat it and in a qualifying sense, be it understood, the term "will" expresses that he is both willing and determined to eat it.

There are two ways to preserve your bait when these pests are about: one is to keep it in your bait box and go home; the other, and the one usually resorted to, is to adjust a cork on the leader close to the hook which will float the bait the length of the leader from the bottom, and this is usually effective.

The only thing on earth or in the waters thereof that these fiends seem to fear is the striped bass. When one of these fish is about, there will no longer be any annoyance from this species of crab, as they are considered a delectable morsel by this superb fish. It is most amazing how quickly the best adjusted bait can be stripped from the hook by this little devil of the sea.

A man I once knew told me of an experience he had while bottom fishing in Jamaica Bay. He was using bloodworms and became so annoyed through the plunderings of this miscreant that finally he stopped baiting and allowed his tackle to lie idle on the bottom. After a while he became aware that there was some-

thing working about his line and was much surprised to see one of his pink-spotted tormentors come, claw after claw, up his line, then down his rod to quite near his hand, where it reared up on its hind legs and looked hungrily into his bait box.

While this incident has never been verified by the writer, still it illustrates the character of the beast and serves as an illuminator in general. It needs no further description, as every angler has met it many times and has contributed much expensive bait to its bill of fare.

Another crab which is very annoying at times is the giant spider. This is a hideous creature, usually met with in muddy channels of rivers and bays and sometimes, but not generally, around fishing piers. It is dark—nearly black—in color, and has a great spread of legs, entirely out of proportion to its body, on the ends of which are its claws or nippers. As they are cream colored they have the appearance of being ivory tipped. Their legs, when extended, frequently measure fifteen or more inches, and are many jointed and armed with the most vicious of nippers which can readily sever a gut leader or line.

Fortunately this is not a species that is an ever present evil. It has the peculiarity of disappearing from our waters at periods, and some seasons pass by without an individual being met with at points where they are usually numerous. Their absence, however,

never causes regret to the angler, as they are an unqualified nuisance when present.

Their hideous aspect when drawn to the side of the boat has, so it is told, caused many fishermen to eschew the use of "liquid baits" and to settle down into staunch, staid citizenship.

The horsefoot or king crab is another creature of most curious mien, but fortunately is not so troublesome as the king spider, being not nearly so abundant and not so prone to search out the bait. They are at times, however, all too abundant at such places as Barnegat and Egg Harbor inlets, as well as at many other points along the southern New Jersey coast.

They are most peculiar creatures, having somewhat the shape of a horse's foot, and travel broad end foremost, and are completely housed within a hard shell. When seen moving along at a distance they resemble nothing so much as an inverted scoop shovel dragging a long spiked tail behind.

When turned on their backs they are quite helpless and the labyrinth of waving short legs displayed is astounding. They are all set going at once and each one in a different direction, making it a physical impossibility to count them. It is said that no one has been able to count more than a hundred legs, as they wriggle about so much it becomes confusing to proceed with any degree of accuracy.

They are extremely troublesome to the fisherman

when they do hover over his bait, inasmuch as they invariably get line and leader all tangled up with their legs, and they seem to take a fiendish delight in tying a loop or knot for each leg involved. When the tackle becomes fouled by one and the reeling in process begins, they instinctively bury the broad expanse of shell in the sand and the subsequent landing becomes a matter of sheer strength of tackle and patience of fisherman.

They are not, however, so entirely worthless as the two foregoing species, for they are regarded as quite a delicacy by barnyard fowl. How any self-respecting chicken could bring itself to the point of indulging in such a feast as this creature might present is quite beyond the writer's ken. Why put a confiding chicken to the task of working through a ton of bones and shell to secure an ounce of questionable food?

Of the familiar edible blue crab, not much may be said that is detrimental to its character. It rarely becomes much of a nuisance to the angler. True, there are times, when using live minnows for certain kinds of bottom feeding fish, that this crab will cut the bait up badly, but it has the rare quality of holding to the desired morsel until brought to the surface, and can frequently be boated if handled carefully. Besides, it makes good eating, and if the fisherman desires he may carry it home and make direct reprisal for the bait it may have destroyed. Again, it is a bold warrior and seems anxious at all times when in captivity to take

a fall out of its captor, and will, without hesitancy—if opportunity offers—take a most punishing strangle hold on its adversary, no matter how great its size may be, and usually wins first blood, putting its adversary to rout. So, while in a way the blue crab may be classed as dross, albeit he is so good a battler that he commands respect, and, besides, he never meddles with the affairs of the surf fisherman, as it is only in rivers and bays that he protrudes his presence.

The above embraces all there are of the crab family which may be expected to give annoyance in either surf or bay fishing along the middle Atlantic coast, but, it may be said in passing, they will be found sufficient.

Passing on to quite another form of life we come to the family of rays or skates. These are distinctive in species and not, as many people think, just big and little members of one family.

The first for review is the little skate, met with in all channels of rivers and bays, as well as in the open surf. It appears to be present nearly the entire year, at least on the middle Atlantic seaboard. It is the first to greet the fisherman in his early endeavors and is very reliable in finding his bait. It is rarely taken on the flats, but in the deep waters of the sloughs along the beach it is prevalent and very annoying, as it rarely takes the bait with sufficient vim to give the man at the rod any notice of its presence, and he only learns that his bait has been disturbed when he starts

reeling in his line; then the perceptible drag gives him due notice of what his tackle has connected with. It rarely exceeds a foot in width and has many spines protruding from its upper surface.

When drawn on the beach it has the peculiar habit of rolling itself up until it is almost spherical in form, and will remain motionless in that position for a long time if not touched. This habit has earned for it the name of "possum" and it is generally so dubbed by fishermen in all localities. It is worthless from all points of view and a great disturber of the angler's peace of mind who, imagining his bait to be in the best possible condition to lure a prize fish, sometimes finds that it has been gorged by this plundering little devil.

It is omnipresent day and night and has a penchant for any bait that can be put on a hook. No matter what size hook may be in use, this little brute can negotiate it with ease and rarely misses becoming a victim. It makes no difference whether the hook be of the largest bass size or the very small size designed for lesser quarry, he appears to never quit swallowing. Once inside the jaws the hook proceeds downward until it reaches the point where his suspender buttons should be worn, and it becomes necessary for the chagrined fisherman to perform a major operation with his fish knife. This is rather a serious matter if the night be dark and there is no lantern handy.

Following this evil one comes the larger summer skate which is not nearly so numerous and consequently not so much of a pest. This one may be discussed in common with the great barn-door skate as their habits are identical and both have the same diabolical propensity for swallowing the bait to the farthest possible limit. When this is the case care should be exercised in removing the hook, as the rough, hornlike jaws of the barn-door are capable of working serious injury to the hand if it should be seized, as they are capable of crushing the shells of crabs and clams in their formidable grinders.

This species is rarely met with along the beach until the water cools down in the autumn. It is a scavenger of pronounced type, disposing of much offal cast overboard from fishing boats and nets.

What are termed the wings of this skate are edible and are sent to the markets by the commercial fishermen. They are said to be very palatable, but the angler never interests himself in that direction; he is content to have his tackle free after working a possible forty or more pounds of animated worthlessness to the beach.

Last, but by no means the least, comes the sting ray or stingaree, as it is generally termed. This is a highly dangerous species and is worthy of a complete description. They do not appear to be common north of Sandy Hook, but are caught in the pound nets along

THE SOUTHERN STING RAY
Trygon Sabina

the entire New Jersey coast during the summer and autumn months, and are a great, as well as a serious, nuisance to fishermen around Barnegat and Egg Harbor inlets.

They usually take a bait eagerly and when hooked make a most vigorous rush, often deceiving the angler into the belief that he has a large channel bass or striped bass hooked. Their first rush is ordinarily from seventy-five to one hundred feet, which is frequently followed by sulking at the bottom. Occasionally they will leap clear of the water at the conclusion of a swift run, the momentum thus acquired carrying them several feet through the air and entirely clear of the water. Their appearance at this moment is most grotesque.

In order to secure the necessary speed through the water for the leap their wings are worked in a most vigorous manner which is kept up at the same rate while in the air. This, with their long tail trailing behind, makes quite a picture and woe to the tackle that might be tangled or not in free running order at this critical juncture. The best of lines would be parted like packthread. As their flight and consequent return to the water partakes of nothing in the way of graceful action, the resounding thwack and splash as they hit the water is most amusing. At best they are brutes and give the angler a most trying time in making the killing. When they sulk at the bottom they have

the habit of arching their wings at an acute angle, thus creating suction which requires the best of tackle, as well as the best of judgment, to overcome.

When they are finally beached they whip their tails most viciously in all directions, endeavoring to strike home their spearlike spines which are located at the base of the tail. Just how the wound is given is not quite clear. The poison shafts are peculiarly constructed and as curiously located for such action. They lie where the tail and body join, are placed one nearly above the other and seem to be incapable of any but the slightest lateral action. Mother Nature, however, in placing the weapon, doubtless endowed the creature with wisdom for its use. Certain it is they can inflict most dangerous wounds which are extremely difficult to heal. There does not appear to be any venom sac at the base of these spines, and it would appear that the animal in some manner exudes the poison through the skin. It has been contended that it is merely the slimy substance which is ever present about their bodies that causes the infection when the wound is inflicted. We perhaps are less interested in the cause of the poison than in its results. This is known to be serious, as many cases are on record that were never healed and many shriveled arms and legs have resulted from their attacks.

The pound net men dread them and have a special form of pike to impale them with and hoist their

bodies overboard. The writer recently killed one at New Inlet, New Jersey, of perhaps forty pounds in weight which gave birth to seven young upon being beached.

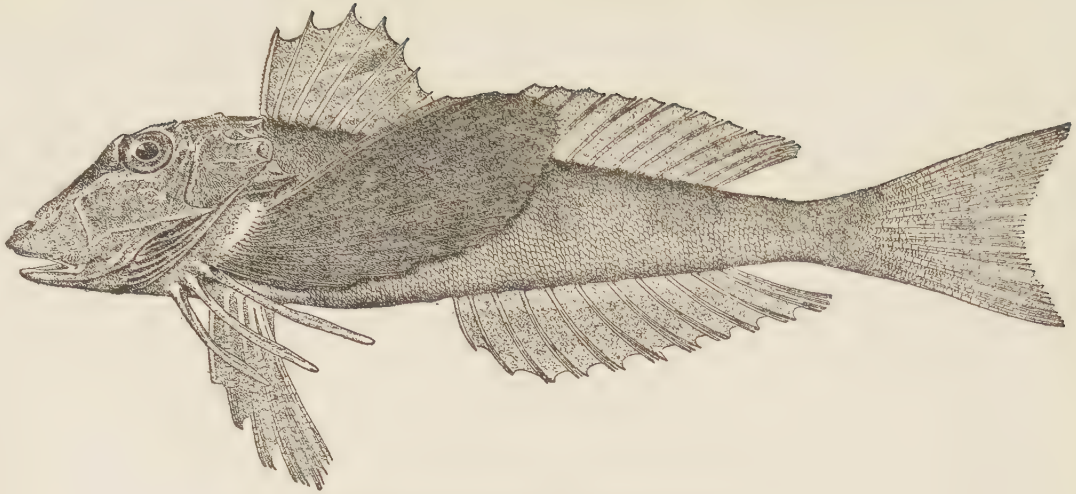
They, like the entire family of rays, will take any kind of bait the fisherman may offer, and the only joy I ever found in the capture of one lay in the knowledge that there was one less pest to mar the pleasure of the angler.

Before attempting to disengage the hook the vertebrae should be severed by a hatchet—if one is procurable—or a heavy fish knife will serve the purpose if intelligently handled. This at once paralyzes the beast and renders it harmless unless sheer carelessness on the part of the operator is manifested.

The gurnards and sculpins, once so plentiful along our coast, appear to be diminishing in numbers as the years go by. Twenty years ago the large gurnards or sea robins, as they are usually termed, were at times extremely annoying. However, they are not altogether an unmixed evil as they are really fine eating when properly prepared.

Sculpins are but little regarded as a pest of late years, but, as we are assured that the "sea shall give up its dead," we may have them back with us again. In which event—but why anticipate?

When reflected upon it seems a peculiar matter that not a single specimen of what may properly be termed



THE SEA ROBIN OR WING-FISH
Prionotus Palmipes

the dross of the sea is of pleasing aspect. All are what we would naturally term deformities or monstrosities. Not one is either brilliantly marked or built along conventional lines. Each carries its distinctive mark of demerit and would seem to vie with the other as to which shall be paramount in imperfection of style and finish. Still, it must be supposed that each species fills its wonted niche and performs its assigned functions in nature.

We are, perforce, compelled to accept as a fact the assertion that nothing has been made in vain, but, on observation, it would appear that Dame Nature came perilously near making a mistake when she brought forth the "sally growler" or toad fish. Here is a specimen that is fit for nothing, not even to look at. It is to met with wherever muddy bottoms are to be found in bays and rivers, will swallow any kind of bait, and will if possible swallow the hook to a point several inches beyond its tail.

A grotesque caricature of a catfish with wartlike excrescences on a slimy skin, it needs no further description, as most salt water fishermen have met with it. Those who have not need feel no regrets over the matter.

If we accept literally the theory that "the fittest only survive," then we are forced to the conclusion that the real mission of the subject needs immediate scientific research.

The dogfish or, as it is now generally termed, "gray-fish," is a member of the shark family and very cleanly in its habits. It has for ages been regarded as entirely worthless and a general nuisance to market fishermen, as well as to those who fish for sport. It has, however, the redeeming feature of being very clean to handle and by some latter-day enthusiasts is deemed a really good fish for the table.

One notable feature of its history is that when it is abundant in any waters all other fish are correspondingly scarce, as it is extremely pugnacious in character and very destructive to other fish life. Large specimens of this tribe will weigh eight to ten pounds, and when such a one is hooked it gives good play on the rod, and the fisherman may well believe at first that a good fish is at hand. This is the only known reason or excuse for its existence. Its first cousin, the "horned dog," is a vicious brute, destructive to everything with which it comes in contact. It is confined to deep waters and is a pest to the trawl line fishermen, frequently eating their catches of cod and haddock before they can get their lines lifted. They are covered with sharp thorny spines and are extremely difficult to handle. As they rarely come close in along shore, the surf fisherman is fairly immune from their assaults.

May comes and the angler, longing for a chance at his favorite sport, hies himself to the beach. He

knows he is from two to three weeks too early in the season to really anticipate results, but the fever is consuming his blood and must be worked out. What cares he for a few dollars spent for bait, or that the very marrow in his bones may become chilled? He's fishing and content.

Although he knows that he is lured by a false hope, he is in season for something he'd forgotten about. No sooner is his nice juicy bloodworm or crab bait in the water than there is something at it. Not a strike—just a pecking and wiggling. Eventually he reels in to find his bait cleanly gone.

Again he baits his hook and casts out, and again the experience is repeated, until, in exasperation, he puts on his leader the smallest hook in his kit, and when that peculiar sensation away out there at the end of his line comes again he strikes wickedly. He's mad; anybody can see that, and he begins reeling in line, but alas, no bending rod gives evidence of a struggling victim on the hook.

At last he realizes there is something fast and he quickens the motion of his reel-hand and winds up to his rod tip a tiny, animated thing, white on the belly with yellow shadings, black and white on the back, and it has a snout shaped like a pig. It will weigh, if in good condition, about three ounces, but it has eaten at least a half pound of bait, and is still hungry.

It has two front teeth that can pierce "armor plate" and are shaped much like the beak of a parrot.

Disgusted, the fisherman throws his catch on the sand and carelessly touches it with the toe of his fishing boot.

Of a sudden it seems to be larger so he rubs it again out of curiosity. It continues to swell and puff up as it is irritated by the toe of the boot, until it is at least five times its original size, and it would seem that in accordance with all natural laws it must burst, but it doesn't. It is simply giving this exhibition to show that it can do anything and remain healthy and—hungry. Yes, it's a blowfish—just a miniature starveling bane to those who angle early in the season by the seashore.

CHAPTER XXXII

THE RANGERS OF BARNEGAT

NO class of people furnishes to us more interesting history than does that class whose lives are spent on and along our water stretches.

While we may not expect or receive from them much in the way of invention or scientific research, those of us, however, who consort with them gather a rich store of legend and story, boundless in scope and human interest.

And what is told of Barnegat may in a sense be said of most large bodies of water contiguous to great centers of population, so far as sameness of life is concerned, as well as their business interests.

Barnegat, however, has a distinctly different character in one respect; lying as it does midway between the great cities of New York and Philadelphia, it has ever been the center of activities to which other and, in many respects more important, bodies of water are strangers.

Its numerous inlets with their deep channels afforded in the long ago the greatest of facilities for successful smuggling, and due advantage was taken of the opportunities thus offered.

Barnegat, Egg Harbor and Absecon inlets, in the order named from north to south, were the scenes of many successful plunderings, and the shores of swamp and woodland were well adapted to concealment of the loot obtained.

In those days wrecks of sailing ships were frequent, as all vessels endeavoring to enter Sandy Hook were compelled to draw close to the land when a sudden blow or dense fog added greatly to the sailors' labors and danger.

The entire New Jersey coast is strewn with remnants of the ill fated craft which were caught on the treacherous sand bars between Cape May and Sandy Hook. At no point were wrecks as frequent as along the approximately ninety miles of Barnegat beach. This is accounted for largely by the fact that the surging tides of the inlets with no breakwaters threw up great sand bars which were constantly shifting, and the luckless vessel that encountered one of these was rarely able to get back into deep water.

As the Coast Guard Service was unknown in those days, the relief which could be given to crews in distress was but of the most meager nature, and cargoes became a prey to such as could remove them from the beach to places of concealment.

Such disasters to the mariner were regarded by a certain element as not altogether a misfortune, and many rich stores of merchandise were obtained in this

questionable manner, and at this remote date there are inheritances being handed down, the nucleus of which was a "wrecked ship."

The term "Barnegat Pirate" has been a familiar term since the memory of man harks back. This is, perhaps, a rather harsh term and is possibly defamatory, as these men did not look upon such gains as unlawful plunder, and at present their descendants will urge that it was a manner of saving what would ultimately have become waste. Be this as it may, certain, however, it is that no one at the time boasted of his bounty nor of its location, and there were many attics, as well as cellars, where strangers were never made welcome nor admitted.

Cases of silks and casks of rarest vintage were sent to the adjacent cities many days after the wreck of the vessel which had originally transported them had largely passed from the public mind, and there have ever been places where such merchandise may be disposed of with but few questions asked.

One of the characters of those early days was "Tim Hankins"; we will call him that because that was not his real name. A powerfully built man, and ordinarily as morose in temperament as gigantic of stature. Where he originally came from there is no record extant. He himself and his two sons, much after the manner of their progenitor, were conspicuous figures on the bay with their fishing boats and were certain to be

promptly on hand when a wreck occurred. The tongues of gossip still give out that bright fires along the beach were not unusual at particular times, and the name of Hankins was always associated with the matter. He had built a substantial one story and attic domicile back on the mainland, and a swarthy negress presided over the premises who was usually as reticent of the doings as was the master himself.

There came a day of heavy tempest on the beach, the sea was in wild tumult and fog draped. The great bark *Queen*, laboring in the trough of the sea with foremast gone, having carried with it both jibs, was in peril and nearing the treacherous sands with each surge of the mighty billows with which she was being buffeted. For several hours she had been in plain view, and it was regarded by those familiar with such situations that her case was practically a hopeless one. No human aid, with such appliances as were then extant, could be of much avail.

Hankins, with his sturdy sons and a man in his service named Nevins, was watching every detail of the hopeless struggle of the frantic crew who were making almost superhuman, though fruitless, efforts to turn the ship about and stand away from the all-embracing sands.

At last she struck and beached high up as the mighty force of the resistless sea sent her on the bar; then she settled down in front and a mighty billow,

striking her stern which was somewhat elevated, broke her in two directly amidship when her two remaining masts went down with a crash, and, within twenty minutes from the time she struck the bar, not a soul of her crew but had perished. She had sailed from Bordeaux, France, destined for New York and was freighted with a cargo of silks, wines and other valuable merchandise. Soon the sea was dotted with cases and casks floating shoreward. How much of this rich plunder fell into the hands of Hankins was never known. For two days and nights he and his men toiled incessantly, rolling the cases and casks across the narrow neck of sand which separates the sea from the bay at that point.

These cases were rolled on skids into the waiting skiffs and taken from there to some secret retreat in the swamp and there presumably "cached" to await the proper hour for their removal through unknown channels of traffic to the illicit marts awaiting them.

A tragedy grew out of this event which at one time promised some disclosures. When most of the loot which was procurable had been secured, a quarrel arose between Hankins and the man Nevins. They had all been drinking heavily and a disagreement as to the amount of the booty Nevins was to receive was the subject in controversy. He, Nevins, it was overheard, made threat to disclose to certain parties where

their valuables lay, in the event of his not being allowed full share with the others.

A few days later Nevins' body was found in a cove near an overturned sailing skiff. The head was badly bruised, and the little sail, still set, was spread out on the water, indicating that the little craft had capsized in a squall and that the sailor had not had time to shorten his sail.

An investigation, after a manner, was held, but nothing came of it of an enlightening nature, as Hankins, as well as his sons, testified that Nevins had gone for a trip to the beach in the little skiff, after which they had neither seen nor heard from him. All the evidence of guilt against any one being purely circumstantial and there being nothing to controvert the testimony given by Hankins and his sons, the hearing was adjourned, and was never afterward called up. So ended one of the many mysteries of that time permitting justice to be trammeled by ignorance or, possibly in this case, the power of money to reach the minions of the law.

It is now conceded that all this ill-gotten gain was eventually loaded on sloops and sent to the large cities for final disposition. Of course, all this is now changed and has been for long years. The Coast Guard and Salvage Corps cares for all cargoes which may be adrift or cast up on the beach, and the loss of life as a result of wrecks is practically nil.

Smuggling was, as before mentioned, a rather important enterprise in the early days and really became an art in conjunction with beach wrecking, many of the same spirits being engaged in both practices. Dutiable goods were unloaded from the deep water vessels which, if not of too great draft, ran directly into the inlets and there made transfer. If there was not sufficient water to accommodate the greater draft vessels, then the consignment was lowered overboard at the proper stage of tide and there transferred to schooners and sloops engaged in carrying wood and charcoal to the cities. These kinds of vessels, being but "coasters" and well known to be only carriers of local commodities, were practically immune from the scrutiny of revenue officers, and so they prospered mightily.

The westerly, or what is termed the mainland, side of the bay is to-day dotted with thriving towns and villages in all of which are to be found good hostelries, and fishing boats with good guides may be engaged at all points. Motor boats in the main are now in service, but the old-type catboats can be had if desired; and if one has abundance of leisure there is great joy to be had in cruising the long stretches of water among the myriad islands through the multitude of thoroughfares stretching between grassy points of land.

This type of boat smacks of the olden times and has a charm and romance not to be found with the swifter moving, engine-equipped craft.

Much of the real story of the sea, however, comes from the descendants of those who had the fortitude to make their homes behind the great sand dunes thrown up by action of the sea and winds on the narrow stretch of land between ocean and beach. Here dwelt the Chadwicks, the Ortleys, the Predmores and many others whose names are ever associated with the memories of Barnegat by famous pens in contemporaneous literature. These worthy people offered to gunners and fishermen that old-time hospitality, wholesome and genuine, a feature sadly lacking in modern times. Their ears caught the "honk" of the first wild goose to reach the waters from the far "northland," as well as the first flight of ducks, and the "gunner guest" was placed where his endeavors would be most sure to spell success.

To them came, as though intuitively planted, the knowledge that the hard-fighting and much-coveted bluefish had broken up inside the inlet, and their boats were sure to be the first on hand to do battle with them. Fortunate the sportsman who chanced to be at hand when the knowledge came! He was always made welcome for the trip, but was expected to do his full share of preparing bait and other essentials. Hardy, honest sea toilers, these men, whose companionship it was good to have, and whose memories are inseparably linked with the traditions and superstitions of old Barnegat.

APPENDIX

THE AUTOBIOGRAPHY OF A FISH

I PRESUME I am an orphan, as I have no knowledge of ever having seen either of my parents. Neither can I learn from any of my associates who my parents were. My first dim recollection of life was as a very tiny object, making my way with a multitude of others, precisely similar to myself, through a maze of grass growing at the river bottom where there was more or less gravel all about.

The first sensation of which I have any memory following my wonderment at life was that of hunger. But what could so small an individual as myself find to subsist on in that wilderness of waters? True, there were myriads of minute objects darting all about us wherever we went. These were no larger than my own eye, and at first we paid no attention to them. Finally and, as I remember now, out of sheer curiosity I snapped at one as it glided by. Small as it was, it made quite a mouthful for me and was delicious. Again I caught one, and it was as fine as the first one. This served as example to the other members of my family, and soon we were all busy darting here and there in quest of the tiny things which seemed so useless, but which proved so satisfying to our appetites. These objects I afterward learned were called by the long name of "animalculæ," but it was not until I was much grown that I found this out and also what caused them to be so restless and continually darting about. The

fact is they were like ourselves feeding on objects smaller than themselves and entirely too small for us to see.

In this manner we passed a long time feeding on these mites, and I grew rapidly, until the water began to grow cold and our food became scarce. I was by this time some six inches in length and hungry all the time. It must not be supposed that all my family had fared as well as myself. In the grass and lying on the bottom were great spider-like things with terrible claws. They were called "crabs." When one of our little flock became careless and would come too close to one of these monsters, out would come one of these awful claws and almost instantly the belly of the victim would be ripped open and death would be the immediate result.

Many of my family perished in this manner, and the rest of us became more cautious each day. While we were yet small, "eels" too were a constant terror to us, their horrible long bodies darting out from some retreat in the grass, or behind a rock or other substance; then, if we were not extremely quick, some member of our tribe would perish.

When the water began growing cold we noticed that many of the larger fish began going upstream. We knew they were of our kind by the beautiful stripes running along their sides, and as they must have more knowledge than we, who had had such short lives, we followed them a long distance upstream, until we came where great quantities of moss lay and we were soon snugly tucked away and remained there a very long time. The water became extremely cold, and we were not hungry like we were when the water was warm and we were swimming about. Some of the time as we lay there and looked up, what seemed like glass was all over the water.

Finally, the warm days and warm water came again, and we grew hungry. Although we had moved about but little, we had grown so that I was about ten inches long and began to delight in my stripes like those on the larger fish. We soon learned to catch and eat many things. Shrimps, which look like grasshoppers, we found much to our liking, and they were plentiful. One day I saw two of our family fighting for possession of a long red worm, and when they tore it in two I noticed that it bled freely. These we found to be fine eating and we looked for them everywhere, but generally could not find them except on muddy bottoms. Our best chance was when men came to rake for oysters or clams, then they would dig the worms out and we would make a great scrambling for them; besides the food we secured, it was great fun catching them and running about keeping others away.

As the water became warmer great numbers of other fish came in from the sea and went on up to where the water was quite fresh and shallow. There they spawned, and, what always seemed to me to be wrong, we ate great quantities of their eggs as we followed them up. While it was great food, still I cannot quite think it was right.

There were great numbers of us in those upper waters that spring and we enjoyed ourselves for weeks and grew rapidly. Finally, we dropped down and met with many other kinds as they came in from the sea, but saw none as well built or nicely marked as our kind.

One day I saw a large fish catch and quickly devour a crab, one of the kind which had been so deadly to us during the first year of our life. Now, however, we were too large and active for them to attack. I recall wondering

at the time how even a large fish could eat such a hard shelled creature, but I soon learned that only when the crabs had shed their shells so they could grow and were entirely helpless were they caught and eaten. I was timid and did not try to catch any myself, but one day, when two large fish were struggling over a crab, one of its claws came off and I seized it and found it to be the most delicious thing I had ever tasted.

During the second summer our growth was very rapid, and I found myself to be a fish of about three pounds, and quite able to care for myself in all ways.

In the early fall months I, with others, had gone down to the sea and experienced quite a sensation and shock at the motion of the waves. It was quite an hour before I could retain my equilibrium, owing to the constant heaving and rushing of the surf which was a novelty and quite a puzzling matter to us all.

At this period we were a school of varied size fish, as our numbers had been broken up many times by different incidents, so that I could no longer recognize any of the members of my original family. It was while we were in the sea that I met with my first real adventure. With others, I was leisurely swimming over a sand flat near the beach picking up such food as was to be found there. The little sand eels were plentiful, and we were put to our wits' end to catch them, as, with their sharp pointed noses and slender bodies, they could disappear quick as thought into the wet sand when they found themselves in danger. I was eagerly pursuing these little sprites which are such choice food, entirely unconscious of danger when I suddenly became aware of a large shadowy form above me, and, at the same instant, there came a tremendous splash in the water. I felt my back in the grasp of two

immense claws which tore into my flesh and I felt myself being lifted bodily out of the water. I struggled with all the power I was possessed of, but could at first avail nothing in the way of release and had been lifted many feet into the air before I felt the deadly grip of those claws slip, and I dropped back into the water. I then knew that we had enemies in the air, as well as all around us in the water, and we could never with safety be off our guard. I learned that my late foe was what is called a fish hawk, a great bird which lives entirely on fish and dives deep into the water after them when necessary. It was many days before my back was healed so that I felt myself again, and the scars remained for a long time. I was much puzzled over the thought of birds eating fish, but then, on reflection, I remembered that we ate worms, crabs and many other curious things, so I devoted myself more to the thought of my own safety than to the curious appetites of birds and fish.

During the fall months and until the water became cold again, we roamed at will in the sea. There were many very large fish of our own kind all about us, as well as many kinds that I had never seen before, all busy finding something to eat. It was great sport chasing the little fish called mullets which, at this season of the year, were very plentiful but very swift swimmers and kept so close along the sand that at times we could not get at them. They are the favorite food of almost every kind of fish and were rarely at rest, being pursued ceaselessly. They are very oily and have a fine flavor.

There were great beds of sea clams along the beach, and when the sea was rough after a blow myriads of them would be washed out and their shells broken, so the meat was eagerly seized and eaten. These made a very agreeable

change in diet, and when they were to be had but little other food was eaten. These clams had a peculiar habit, when the sea was calm, of protruding a long, fleshy, tongue-like organ far beyond the shell. Whether it is their manner of feeding or as a means of moving themselves about, I could never determine. At such times we would snap at, and cut off, these fleshy morsels close to the shell, and, of course, leave the clam to die, which, I believe, accounts for so many of the shells seen along the beach and in the water.

One day, there came a splash close to me and I saw a large clam without a shell settle down to the bottom. Without giving thought to so strange a circumstance, I made a rush for it; but a fish several times larger than myself seized it first. I saw, as he dashed away, that there was a long string attached to it, and that the large fish had difficulty in swimming away with it, and that after a long struggle he was being gradually drawn toward the beach. In vain, the great fish darted this way and that in his endeavors to get away from the string which was in some unaccountable manner fast to his jaws. I also saw a piece of lead swinging from the string, and then I knew it was some contrivance for catching fish, and I was much interested as well as alarmed, as it was the first time I had ever seen a fish caught in this way. I was curious to know all about it and followed closely as he plunged from side to side, all the time getting nearer the beach. As he turned on his side near me, I could plainly see a hook fastened in his jaw holding his mouth open, so he could not breathe naturally as a fish does under water. This hook had been hidden in the clam so it could not be seen and was one more peril to be avoided if possible. As we got near the beach, I plainly saw a man with a long

stick, on which was a small arrangement with a handle which the man kept turning, winding in the line. All this to me was wonderful. I felt sorry for my helpless relative, but I was powerless to give him any aid and, after a prolonged struggle on his part, a wave more powerful in its sweep than usual carried the exhausted victim up on the sand. I, too, came near being stranded, so intent was I on the outcome. As I was so near the shore, I plainly heard the man call out to another man near him, "I've got a dandy striped bass." It was then, for the first time, that I knew what our real name was, and that "men" also worked for our destruction. But I was to know later on that they were the deadliest of all foes and that far more dangerous contrivances were about. My back, where the fish hawk had struck me, was now healed, but there was quite a scar which was a long time in evidence. I was surprised to find how rapidly I was growing and how much I had increased in size since coming down to the ocean. I was learning to be wary of things with which I was not familiar. I could never get over my fear of boats as they went over us with their wheels spinning in the water, and always went scurrying away when they came along.

We frequently made long trips up and down the beach, hunting over every flat and through the deep sloughs, searching for food. It is most surprising how much food a large bass will consume in a single day. It was on one of these trips, when we were close inshore feeding, that I noticed a boat going along, dropping overboard what seemed like a thin curtain. It was entirely around us and, before we were aware, we were completely inclosed by a large net which reached from the top of the water to the bottom. The larger fish which had more experience

began dashing here and there trying to get out, but it seemed useless, and I became greatly frightened as the great net began dragging us toward the beach. Here was a contrivance which I had never heard of, and, as I swam in my fright near the shore, I saw men holding ropes and gradually drawing the net to the beach. In our predicament we, particularly the larger fish, threw ourselves against the net with all our force, but it was of no avail. Just as we were about to be drawn out on the sand, several having been thrown out of the net in fact, the rope, which was at the bottom and which had small leads along its entire length to keep it down so that none of us could get under it, ran up over a large tin can lying on the bottom, partly filled with sand. This left quite an opening on each side as the rope slipped slowly over it, and those of us who were fortunate enough to be near at the moment went through like a flash. There were perhaps fifty of us lucky ones who thus got away, but the greater part of the entire group we never saw again.

We were greatly saddened at the sudden loss to our tribe of so many beautiful members, and I did not know until then that men were so eager to catch us, and that we were so highly regarded for food. We brought high prices in the markets, too, I found out, and money is regarded by men as of more value than the lives we were so anxious to retain.

Another thing I learned in my daily communication with older fish was that men thought it was the greatest of sports to catch us on a hook with a long string, as our struggles to get free were a peculiar delight to them and, because we so earnestly fought for our liberty, we were called gamy. This, of course, I could not understand but it furnished me many thoughts and wonders.

I noticed, while many kinds of fish came in close along shore to feed at intervals, then swam back to deeper water as the tides dropped off, none of our tribe did this, but did their wandering parallel with the coast. As I grew more experienced I realized how important it was to avoid things with which I was not familiar. One day a bright shining object went darting through the water close to where I was resting. My first impulse was to seize it and I really started for it, but I saw it had a string fastened to it and I dropped back, when one of our family, seeing it and either not noticing the string or not knowing its dangerous meaning, rushed after and grabbed the shining deception. Instantly I saw his head jerked violently around and I was forced to witness his unavailing struggles to get free. I also saw that he was not given the time to work around, as was the fish which had been taken on the clam bait, but was more rapidly drawn in. The reason for this, I imagined, was because the long, shining object was heavier and more liable to be shaken out of its mouth by the fish than the shorter and lighter hook. Curiosity again prompted me to follow close to this victim also, and in the end I saw him drawn out on the sand by the man with the long stick with the crank contrivance fastened to it. As he tore the hook out of my friend's mouth, I heard him shout to another man near by, "I got that bass on a bluefish squid." Of course, I was ignorant as to just what he meant, but I have since seen many of my kin, as well as many other kinds of fish, caught with them.

As before stated, it was impossible for me to even estimate how many of my original family remained. Our numbers were constantly being added to by other schools of fish coming from different points. Then we would all

be broken up into smaller groups through some catastrophe or unlooked-for circumstance.

There is intuition with us as regards where food may be found in abundance, and one of the very best points is where the tides sweep hard around and over the flats along the beach. Just here many kinds of food always may be found, and our tribes are sure to be there at some stage of the tide.

One of our worst and most dreaded foes was "porpoises." These great plunging monsters would often come amongst us when we were peacefully feeding or quite at rest and strike terror to every one. It would seem that these animals, sluggish as they appear when seen swimming along the coast, could hardly overtake any of the swift swimming fish. But when they locate their prey they become like ravenous wolves of the land and dart through the water, their sharp snouts cutting their way, and in terror and confusion almost all fish smaller than themselves fall victims. They would occasionally strike into a school of us and destroy many, as well as so scatter us about that sometimes it would be a long time before what was left would get together again.

At certain seasons, one of our favorite foods was the "squid" or "inkfish." These curious and rather hideous looking creatures frequently came in great abundance, so that at such times we were gorged with food. It was most amusing to see these rather sluggish creatures which seem to swim backward cast out a black cloud like ink to hide themselves, but that could not hide their forms from our sharp eyes, and their capture was easy. On these we thrived and took on growth rapidly.

The last adventure that I will have to relate tells of a day in which we were all roving about in search of

food. Those little spotted crabs which are so plentiful at times were all about us, but when one of us came near them they would quickly burrow in the sand so we would frequently be compelled to root them out with our jaws, and in many cases were unable to locate them after they disappeared.

Many times we would find them near rocks and other objects, just after they had cast their shells. They were then in fine condition for eating and we had no shells to crush with our jaws. These crabs, however, are not as hard as the large blue ones, and many times we would simply catch and crush them and swallow shell and all; later on the shells would be thrown out. When they had recently shed they were absolutely helpless and could move about but little, and were entirely unable to burrow in the sand.

My eye caught one lying quiet and, thinking it was soft, I quickly took it in my mouth; but I found it was fast to something, as I started swimming away. The next moment I received a violent jerk and felt the sharp pang of a steel hook fastened in my jaw. Instantly I realized my predicament. The string had doubtless been lying on the sand for some time and had become covered over, so it escaped my eye. In a moment I saw over again the struggles of my former companions and I imagined "my time had come." Instead, however, of struggling hard against the line I permitted myself to go quite easily with it. But now and then I could feel a surging from the shore on the line and I knew that the hook was sinking into a firmer hold with each stroke. In despair I grew nervous and made a dash for liberty, thinking I might break the string and gain my release. But all to no avail; I was allowed—in some manner—to make quite a run,

but was soon snubbed and brought around, head to the beach. I now knew that in all probability I was lost and was preparing to resign myself to my fate, when I espied a large stake or pole set in the sand and in sheer desperation dashed around it, carrying the line with me. I no longer felt the pull from the beach, but was held fast by the pole. I at once began to surge from right to left and up and down. This procedure made a large opening in the jaw where the hook had set, and at last it dropped out to my great joy. I was again at liberty, although there was a grievous rent in the upper jaw near the outer rim which, for a long time, interfered with my feeding. It was very tedious in healing over and has left a scarred ridge which is quite disfiguring.

Despite all the difficulties which we pass through, our lives are comparatively happy, and, could we but find a place where the devices of men are unknown, our lot would be far more cheerful. I am now a grown fish of perhaps twenty-five pounds and feel comparatively safe from most of the perils of my earlier life. But I fully realize that from man there is no point of safety for my tribe, and I will always aim to study carefully every suspicious device that is placed near my abiding points.

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